SPECIAL **TIME** EDITION

THE SCIENCE OF GOOD & EVIL

WHAT MAKES US MORAL

GOOD DEEDS, GOOD HEALTH

UNDERSTANDING THE DARK SIDE

PLUS
DO ANIMALS HAVE ETHICS?

SPECIAL TIME EDITION

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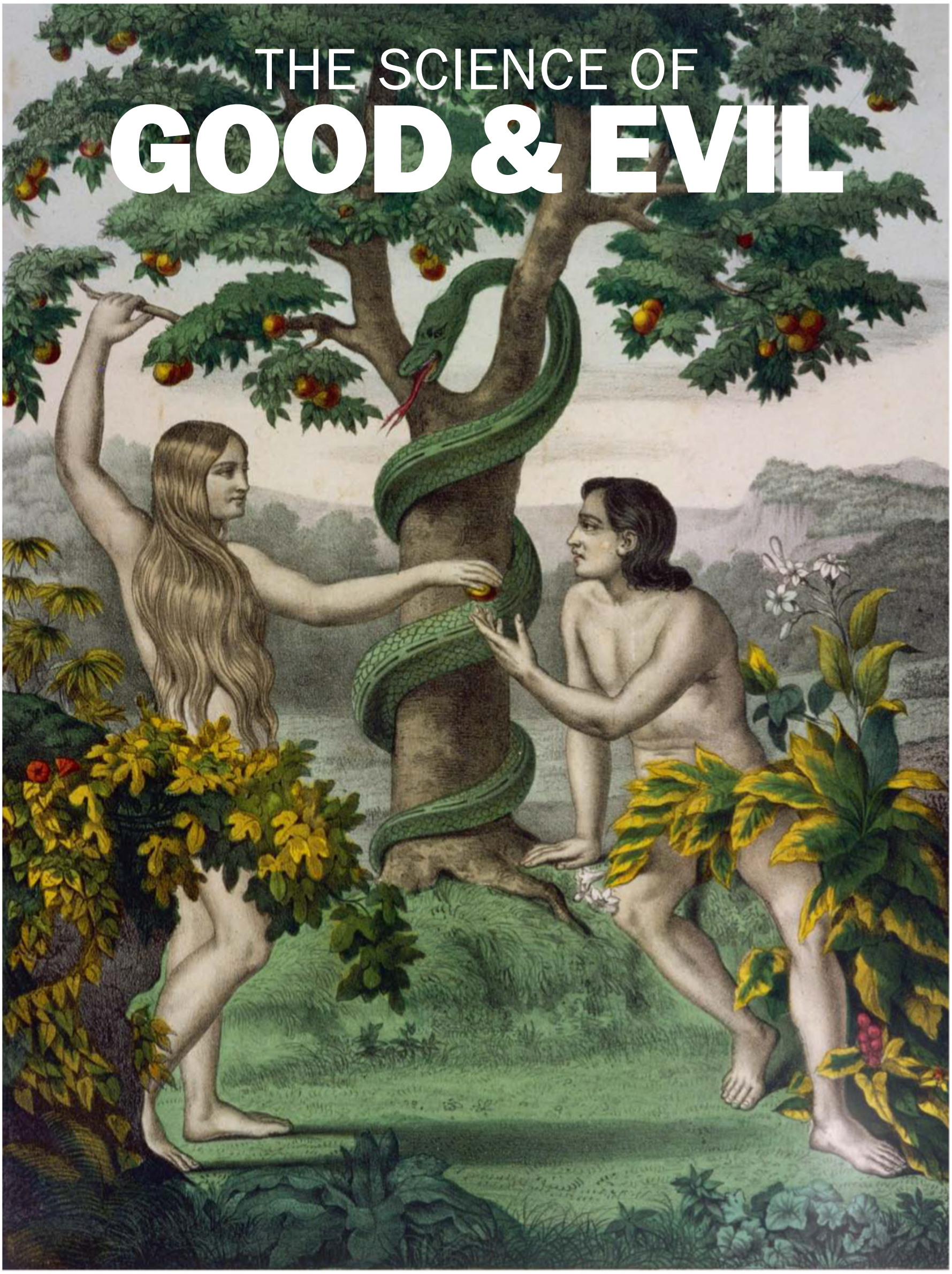

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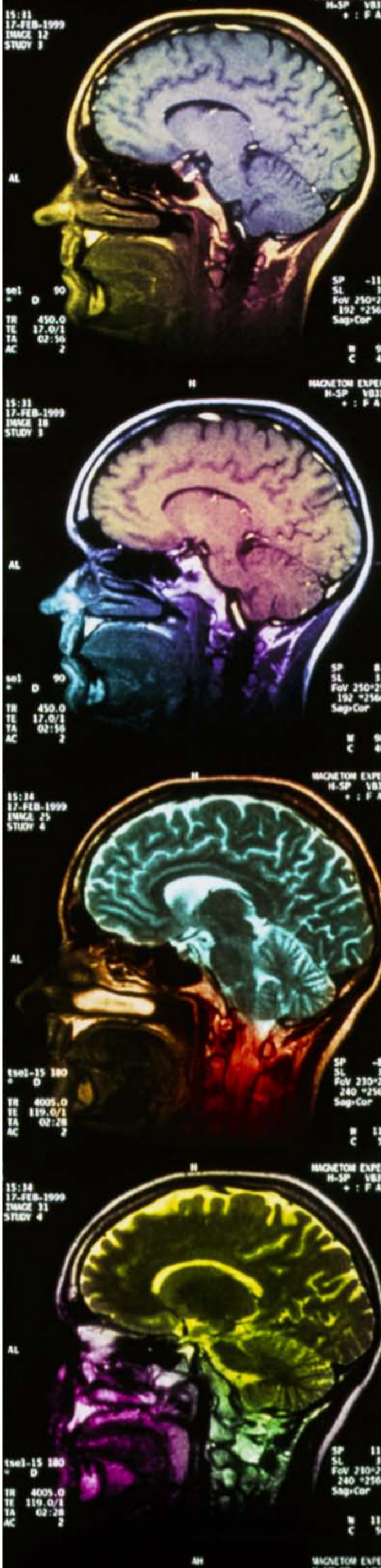
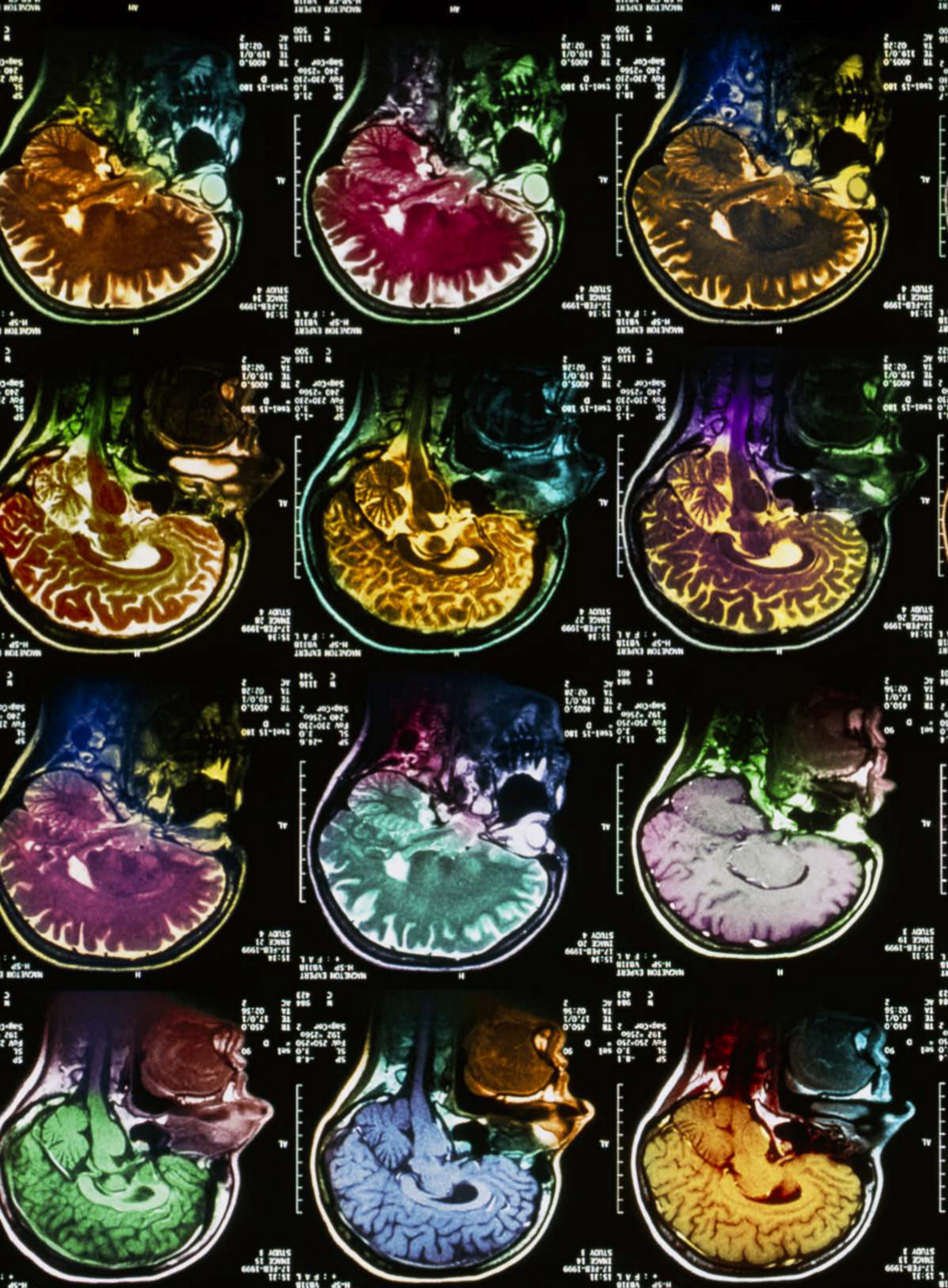
In these sagittal, or side view, sections of colored MRI scans, the largest part of the brain is the folded cerebrum. This area dictates our conscious thoughts.

Parts of this edition appeared previously in TIME.





THE SCIENCE OF

GOOD

There is much in the human spirit to love, and

&EVIL

there is much to fear. That is the riddle of us

BY JEFFREY KLUGER

NATURE OUGHT TO HAVE WASHED ITS HANDS OF us by now, and if it hasn't yet, every day seems to give it a new opportunity to rethink that decision. It's not just that we're evil—though we are. We build bombs, we manufacture guns, we slaughter one another with an ugly lustiness that defies the powerful social impulses that are supposed to be coded into us.

The bigger problem for nature is that we're also fools. If our genes have told us once, they've told us a thousand times: stay out of harm's way. When a madman's raging, when a bomb goes off, when a 110-story building is pancaking down and another one right next to it is about to do the same, run the hell away. Yes, yes, you hear a lot about fight-or-flight, but really, you want to live? Go for flight. And yet we don't—or at least some of us don't.

Consider one of the more conspicuous examples of human savagery in the past several years: the 2013 Boston Marathon bombing, in which a happy exercise in play and pageantry was ripped apart by sudden violence. The bombs went off, the victims fell, the familiar footprint of flesh and blood and terror was stamped into the streets. And people did what they are hardwired to do, which is that they scattered—at first.

SOMETIMES WE ACTUALLY FIGHT FOR THE CHANCE TO RISK OUR LIVES TO SAVE OTHERS

And then an equally familiar gathering began. Police and military teams swarmed the snow fences along the streets, pulling them down to allow medical personnel in. Doctors, paramedics and passersby knelt in the blood to administer aid to people they had never met before that moment and might never see after it. Perhaps there were more bombs still to go off; perhaps the same madmen who set off the first ones would show up with assault weapons next. Never mind; the caregivers rushed in anyway.

There has always been this kind of opposing physics to good and evil. Evil begins from a point source—a cartridge of gunpowder, a nugget of uranium, a knot of hate in a single dark mind—and then it blows outward. Good gathers from everywhere around the blast and then moves—foolishly, perilously, wonderfully—toward it.

Sometimes we actually have to fight for the opportunity to risk our lives this way. "The police were trying to keep us back, but I told them I was a physician and they let me through," Natalie Stavas, a runner in the marathon, told the *New York Times* in the aftermath of the bombing. At one point, her ministrations included performing CPR on a woman whom she suspected was already dead. Consider the exchange rate of that transaction: her own very much extant life placed at risk for one that may have been past saving.

Ethicists, anthropologists and evolutionary biologists have tried for a long time to figure out why we do these things—putting ourselves in mortal danger to save other people and, in so doing, defying our one great evolutionary imperative, which is to stay alive ourselves. There are the reductionist explanations, of course. It's genetic mathematics, say the sociobiologists. You won't help anyone at all, just the ones with whom you have some biological connection. You're twice as likely to come to the aid of your parents, siblings and children, with whom you share 50% of your genes, as you are to help your grandparents, grandchildren, nieces and nephews, with whom you share 25%.

Things move on down this way in tidy arithmetical lockstep through your cousins and great-half-aunts and great-great-great-uncles, with their 12.5% and 6.25% and 3.13% relatedness, and it all makes a

perfect kind of orderly sense, until you ask why you'd consider helping the bleeding stranger on the Boston streets, with whom you share no genes at all. At that point the sociobiologists start a lot of hand-waving about tribal relatedness and collective genetics and you pretty much stop listening.

In the alternative, there are neurological explanations for human selflessness. We're sympathetic creatures, but not in the prettified way we usually use that word. Our brains are wired with mirror neurons—cells that make us mimic the behavior of the people around us, so that we laugh when they laugh, cry when they cry, yawn when they yawn. We even wince at other people's pain. That provides social cohesion, but it also reduces our most generous impulses to something more transactional: we relieve the suffering of strangers in part because it hurts too much to do nothing.

A similar reductionist argument is made by scientists who scan the brain and actually see where goodness lives. Moral behavior is processed in the prefrontal cortex and the meso-limbic region. It follows a very mappable neuronal path that is no more complex than the one that allows you to throw a baseball or write your name, and that's no more lyrical either.

And yet these answers just ring wrong. You can deconstruct a painting by explaining the salts and sulfides that make up its pigments; you can parse a symphony by measuring the frequency of the final crashing chord, but you're missing something bigger.

Humans, instead, are guided by a sort of moral grammar—a primal ethical structure on which decency is built, just the way our language is built, on syntax and tenses and conditional clauses. You know when a sentence is right and when it isn't even if you can't quite explain why, and you know the same thing about goodness too.

HUMANS ARE GUIDED BY A MORAL GRAMMAR—AN INNATE SET OF RULES SHAPING WHAT IS RIGHT

It starts young. Toddlers seem like domestic anarchists, and yet they are strangely self-policing. They exhibit little evident guilt when they're caught, say, stealing a cookie. Any regret is more about the rotten luck of getting busted. But there's a push-pull when the same toddler hits a little sibling who then dissolves in tears. You see it in the sympathetic expression, in a worried twisting of hands, in, often as not, an attempt to give comfort immediately after giving pain. The cookie theft was a broken rule. The hitting was a basic wrong.

What starts young stays with us. Yes, we're savage; yes, we're brutal. The people who set the Boston bombs—or shoot up high schools and nightclubs, or drive a car into a crowd of people protesting white supremacists—are humans like anyone else and thus close kin to us all. But we're close kin, too, to the first responders; we're close kin to the people who cried for the first-graders killed at Sandy Hook Elementary school in 2012, even not knowing any of them personally, because first-graders simply shouldn't die.

The very empathy that brings us to those tears need not be wasted on the people who commit the crimes. In 2001, when the rubble of the September 11 attacks was still smoldering, TIME's Lance Morrow wrote, "Anyone who does not loathe the people who did these things, and the people who cheer them on, is too philosophical for decent company."

But it's equally true that the people who commit such crimes are, in many ways, the free radicals of our social organism—the atoms that go bouncing about, unbonded to anything, doing damage to whatever they touch. The bonds they lack are the ones the rest of us share—the ones that make us pull away the snow fences and kneel in the blood pools. There's terrible pain in that—and profound love too. ◻

WHAT MAKES US MORAL

A precise definition of morality may always be elusive, but being good, even altruistic, is something all societies value. Why is that so—and what can that teach us?

BY JEFFREY KLUGER, TIFFANY SHARPLES AND ALEXANDRA SILVER

IF THE ENTIRE HUMAN SPECIES WERE A SINGLE individual, that person would long ago have been declared mad. The insanity would not lie in the anger and darkness of the human mind—though it can be a black and raging place indeed. And it certainly wouldn't lie in the transcendent goodness of that mind—one so sublime, we fold it into a larger "soul." The madness would lie instead in the fact that both of those qualities, the savage and the splendid, can exist in one creature, one person, often in one instant.

We're a species that is capable of almost dumbfounding kindness. We nurse one another, romance one another, weep for one another. Ever since science taught us how, we willingly tear the very organs from our bodies and give them to one another. And at the same time, we slaughter one another. The past 25 years of human history are the temporal equivalent of those subatomic particles that are created in accelerators and vanish in a trillionth of a second, but in that fleeting instant, we've visited untold horrors on ourselves—in Mosul, Charlottesville, Aleppo, Mogadishu, Rwanda, Chechnya, Darfur, Beslan, Baghdad, Pakistan, Paris, London, Lebanon, Israel, New York City, Abu Ghraib, Oklahoma City, a church in Charleston, a synagogue in Pittsburgh—all of the crimes committed by the highest, wisest, most principled species the planet has produced. That we're also the lowest, cruelest, most blood-drenched species is our shame and our paradox.

The deeper that science drills into the substrata of behavior, the harder it becomes to preserve the vanity that we are unique among earth's creatures. But we *are* the only species with language, we told

ourselves. In how we construct shelters and gather food, and even communicate, all have overlaps or similarities with other creatures.

What does, or ought to, separate us then is our highly developed sense of morality, a primal understanding of good and bad, of right and wrong, of what it means to suffer not only our own pain—something any creature with a rudimentary nervous system can do—but also the pain of others. We go beyond simple empathy to a nuanced consideration of feelings and responses, of the repercussions of our actions on deep, even intimate levels. That quality is the distilled essence of what it means to be human. Why it's an essence that so often spoils, no one can say.

Morality may be a hard concept to grasp, but we acquire it fast. A preschooler will learn that it's not all right to eat in the classroom, because the teacher says it's not. If the rule is lifted and eating is approved, the child will happily comply. But if the same teacher says it's also OK to push another student off a chair, the child hesitates. "He'll respond, 'No, the teacher shouldn't say that,' " says psychologist Michael Schulman, co-author of *Bringing Up a Moral Child*. In both cases, somebody taught the child a rule, but the rule against pushing has a stickiness about it, one that resists coming unstuck even if someone in authority countenances it. That's the difference between a matter of morality and one of mere social convention, and Schulman and others believe kids feel it innately.

Of course, the fact is, that child will sometimes hit and won't feel particularly bad about it either—unless he's caught. The judgments we make about morality—knowing what's right and wrong and recognizing both kinds of behavior in ourselves and others—are pretty common to all of us. The *choices* we make, to behave morally or immorally, are a different matter, and there is a wide variety across populations. Simply knowing or intuitively feeling a rule does not mean we will follow it.

Where do those intuitions come from? And why are we so inconsistent about following where they lead us? Scientists can't yet answer those questions, but that hasn't stopped them from looking. Brain scans are providing some clues. Animal studies are providing others. Investigations of tribal behavior are providing still more. None of this research may make us behave better, not right away at least. But all of it can help us understand ourselves—a small step up from savagery, perhaps, but an important one.

THE MORAL APE

THE DEEPEST FOUNDATION ON WHICH MORALITY is built is the phenomenon of empathy, the understanding that what hurts me would feel the same way to you. And human ego notwithstanding, it's a quality other species share.

It's not surprising that animals far less complex than we are would display a trait that's as generous of spirit as empathy, particularly if you decide there's no spirit involved in it at all. Behaviorists often reduce what we call empathy to a mercantile business known as reciprocal altruism. A favor done today—food offered, shelter given—brings a return favor tomorrow. If a colony of animals practices that give-and-take well, the group thrives.

But even in animals, there's something richer going on. One of the first and most poignant observations of empathy in nonhumans was made by Russian primatologist Nadia Kohts, who studied nonhuman cognition in the first half of the 20th century and raised a young chimpanzee in her home. When the chimp would make his way to the roof of the house, ordinary strategies for bringing him down—calling, scolding, offers of food—would rarely work. But if Kohts sat down and pretended to cry, the chimp would go to her immediately. "He runs around me as if looking for the offender," she wrote. "He tenderly takes my chin in his palm . . . as if trying to understand what is happening."

You hardly have to go back to the early part of the

IMPOSSIBLE CHOICES
Doing what's right is harder than it seems, as even a few moral dilemmas reveal.

The Sinking Lifeboat

You are adrift in a life raft after your cruise ship has sunk. There are too many survivors for the life rafts, and yours is dangerously overloaded. The raft is certain to sink, and even with life vests on, all of the passengers are sure to die because of the frigid temperature of the water. One person on the boat is awake and alert but gravely ill and will not survive the journey no matter what. Throwing that person overboard would prevent the raft from sinking. Could you be the one who tosses the person out?

I COULD THROW A SURVIVOR OVERBOARD

❑ YES ❑ NO

past century to find such accounts. Even cynics went soft at the story of Binta Jua, the gorilla who in 1996 rescued a 3-year-old boy who had tumbled into her zoo enclosure, rocking him gently in her arms and carrying him to a door where trainers could enter and collect him. "The capacity of empathy is multilayered," says primatologist Frans de Waal of Emory University, author of *Our Inner Ape*. "We share a core with lots of animals."

Although it's impossible to directly measure empathy in animals, in humans it's another matter. In one study, spouses or unmarried couples underwent functional magnetic resonance imaging (fMRI) as they were subjected to mild pain. They were warned before each time the painful stimulus was administered, and their brains lit up in a characteristic way signaling mild dread. They were then told that they were not going to feel the discomfort but that their partner was. Even when they couldn't see their partner, the brains of the subjects lit up precisely as if they were about to experience the pain themselves. Not only did they feel a spouse's pain, they anticipated and dreaded a spouse's pain.

The brain works harder when the threat gets more complicated. A favorite scenario that morality researchers study is the trolley dilemma. You're standing near a track as an out-of-control train hurtles toward five unsuspecting people. There's a switch nearby that would let you divert the train onto a siding. Would you do it? Of course. You save five lives at no cost. But suppose a single unsuspecting man was on the siding? Now the mortality score is 5 to 1. Could you kill him to save the others? What if the innocent man were on a bridge over the trolley and you had to push him onto the track to stop the train?

Pose these dilemmas to people while they're in an fMRI, and the brain scans get messy. Using a switch to divert the train toward one person instead of five increases activity in the dorsolateral prefrontal cortex—the place where cool, utilitarian choices are made. Complicate things with the idea of pushing the innocent victim, and the medial frontal cortex—an area associated with emotion—lights up. As these two regions do battle, we may make irrational decisions. In a recent survey, 85% of subjects who were asked about the trolley scenarios said they would not push the innocent man onto the tracks, even though they knew they had just sent five people to their hypothetical death. "What's going on in our heads?" asks Joshua Greene, a professor of psychology at Harvard and the author of *Moral Tribes: Emotion, Reason, and the Gap Between Us and Them*. "Why do we say it's OK to trade one life for five in one case and not others?"

HOW WE STAY GOOD

MERELY BEING EQUIPPED WITH MORAL PROGRAMming does not mean we practice moral behavior. Something still has to boot up that software and configure it properly, and that something is the community. A growing body of researchers believe that all of us carry a sense of moral grammar—the ethical equivalent of the basic grasp of speech that most linguists believe is with us from birth. But just as syntax is nothing until words are built upon it, so too is a sense of right and wrong useless until someone teaches you how to apply it.

> ALL OF US HAVE A MORAL GRAMMAR, SIMILAR TO OUR BASIC GRASP OF LANGUAGE

It's the people around us who do that teaching—often quite well. Once again, however, humans aren't the ones who dreamed up such a mentoring system. At the Arnhem Zoo in the Netherlands, de Waal was struck by how vigorously apes enforced group norms one evening when the zookeepers were calling their chimpanzees in for dinner. The keepers' rule at Arnhem was that no chimps would eat until the entire community was present, but two adolescents grew willful, staying outside the building. The hours it took to coax them inside caused the mood in the hungry colony to turn surly. That night the keepers put the delinquents to bed in a separate area—a sort of protective custody to shield them from reprisals. But the next day the adolescents were on their own, and the troop made its feelings plain, administering a sound beating. The chastened chimps were the first to come in that evening. Animals have what de Waal calls "oughts"—rules that the group must follow—

The Crying Baby

It's wartime, and you're hiding in a basement with your baby and a group of other people. Enemy soldiers are outside and will be drawn to any sound. If you're found, you will all be killed immediately. Your baby starts to cry loudly and cannot be stopped. Smothering him to death is the only way to silence him and save the lives of everyone in the room. Could you do so? Assume the baby is not yours, the parents are unknown and there will be no penalty for killing him. Could you be the one who smothers this baby if no one else would?

YOUR BABY
❑ YES ❑ NO

SOMEONE ELSE'S BABY
❑ YES ❑ NO

and the community enforces them.

Human communities impose their own oughts, but they can vary radically from culture to culture. Take the phenomenon of Good Samaritan laws that require passersby to assist someone in peril, at least if we can do so without endangering ourselves. Our species has a very conflicted sense of when we ought to help someone else and when we ought not, and the general rule is, Help those close to home and ignore those far away. That's in part because the plight of a person you can see will always feel more real than the problems of someone whose suffering is merely described to you. But part of it is also rooted in you from a time when the welfare of your tribe was essential for your survival but the welfare of an opposing tribe was not—and might even be a threat.

In the 21st century, we retain a powerful remnant of that primal dichotomy, which is what impels us to step in and help a mugging victim—or, in the case of the mass shooting in an Aurora, Colo., movie theater in 2012, literally take a bullet for someone else, as three young men did when they died saving their girlfriends—but allows us to decline to send a small contribution to help the people in a war zone. "The idea that you can save the life of a stranger on the other side of the world by making a modest material sacrifice is not the kind of situation our social brains are prepared for," says Greene.

Throughout most of the world, you're still not required to aid a stranger, but in France and elsewhere, laws now make it a crime for passersby not to provide at least the up-close-and-personal aid we're good at giving. In most of the U.S., we make a distinction between an action and an omission to act. The line has been effectively erased in France.

But you don't need a state to create a moral code. The group does it too. One of the most powerful tools for enforcing group morals is the practice of shunning. If membership in a tribe is the way you ensure yourself food, family and protection from predators, being blackballed can be a terrifying thing. Religious believers as diverse as Roman Catholics, Mennonites and Jehovah's Witnesses have practiced their own forms of shunning—though the banishments may go by names like excommunication or disfellowshipping. Clubs, social groups and fraternities expel undesirable members, and the U.S. military retains the threat of discharge as a disciplinary tool, even grading the punishment as "other than honorable" or "dishonorable," dark-

ening the mark a former service person must carry for life.

Sometimes shunning emerges spontaneously when a society of millions recoils at a single member's acts. O.J. Simpson's 1995 acquittal on a double-murder charge did not end there. Afterward, much of the public and his associates turned their backs on him, denying him work, expelling him from his country club, refusing him service in a restaurant. In 2006 his erstwhile publisher, who was fired in the wake of her and Simpson's disastrous attempt to publish a book about the killings, sued her ex-employer, alleging that she had been "shunned" and "humiliated." That, her former bosses might well have responded, was precisely the point.

"Human beings were small, defenseless and vulnerable to predators," says Barbara J. King, a biological anthropologist and professor emerita at the College of William and Mary and the author of *Evolving God*. "Avoiding banishment would be important to us."

WHY WE TURN BAD

WITH SO MANY REDUNDANT MORAL SYSTEMS TO keep us in line, why do we so often fall out of ranks? Sometimes we can't help it, as when we're suffering from clinical insanity and behavior slips the grip of reason. Criminal courts are stingy about finding such exculpatory madness, requiring a disability so severe, the defendant might not even have known the crime was wrong. That's a very high bar that prevents all but a few from proving the necessary moral numbness to warrant some measure of forgiveness.

Things are different in the case of the cool and deliberate serial killer, who knows the criminality of his deeds yet continues to commit them. For neuroscientists, the iciness of the acts calls to mind the case of Phineas Gage, the Vermont railway worker who in 1848 was injured when an explosion caused a tamping iron to be driven through his prefrontal cortex. Improbably, he survived, but he exhibited stark behavioral changes—becoming detached and irreverent, though never criminal. Ever since, scientists have looked for the roots of serial murder in the brain's physical state.

A study published in 2005 in the journal *NeuroImage* may have helped provide some answers. Researchers working through the National Institute of Mental Health scanned the brains of 20 healthy volunteers, watching their reactions as they were presented with various legal and illegal scenarios. The brain activity that most closely tracked the hypothetical crimes—rising and falling with the severity of the scenarios—occurred in the amygdala, a deep structure that helps us make the connection between bad acts and punishments. As in the trolley studies, there was also activity in the frontal cortex. The fact that the subjects had no sociopathic tendencies limits the value of the findings. But knowing how the brain functions when things work well is one way of knowing where to look when things break down.

Fortunately, the overwhelming majority of us will never run off the moral rails in remotely as awful a way as serial killers do, but we do come untracked in smaller ways. We face our biggest challenges not when we're called upon to behave ourselves within our family, community or workplace but when we have to apply the same moral care to people who fall outside the circle of our tribe.

The Runaway Trolley

A runaway trolley is heading down the tracks toward five workmen who can't be warned in time. You are standing near a switch that would divert the trolley onto a siding, but there is a single unsuspecting workman there. Would you throw the switch, killing one to save five? Suppose the workman was on a bridge with you and you could save the men only by pushing him onto the tracks? (He's large enough to stop the train; you're not.) Suppose you could throw a switch dropping him through a trapdoor—thus not physically pushing him?

DIVERT TRAIN ❑ YES ❑ NO | **PUSH MAN** ❑ YES ❑ NO | **USE TRAPDOOR** ❑ YES ❑ NO

The notion of the "other" is tough for *Homo sapiens*. Sociobiology has been criticized as one of the most reductive of sciences, ascribing the behavior of all living things—us included—as nothing more than an effort to get as many genes as possible into the next generation, even to the point that we provide greater care to, say, a sibling than a cousin, since the sibling shares more of our genes. The idea makes sense, and all creatures can be forgiven for favoring their troop over others. But such bias turns dark fast. Schulman has worked with delinquent adolescents at a residential treatment center in Yonkers, N.Y., and was struck one day by the outrage that swept through the place when the residents learned that three of the boys had mugged an elderly woman. "I wouldn't mug an old lady. That could be my grandmother," one said. Schulman asked whom it would be OK to mug. The boy answered, "A Chinese delivery guy." Explains Schulman, "The old lady is someone they could empathize with. The Chinese delivery guy is alien, literally and figuratively, to them."

This kind of brutal line between insiders and outsiders is evident everywhere—mobsters, say, who kill promiscuously yet go on rhapsodically about "family." But it has its most terrible expression in wars, in which the dehumanization of the outsider is essential for wholesale slaughter to occur. Volumes have been written about what goes on in the collective minds of people living in a place like Nazi Germany. Although killers like Adolf Hitler can never be put on the couch, it's possible to understand the xenophobic strings they play in their people.

The ethnic war in Yugoslavia in the 1990s was "the great modern example of manipulating tribal sentiments to create mass murder," says Jonathan Haidt, a professor of psychology at New York University. "You saw it in Rwanda too. In most cases of genocide, you have a moral entrepreneur who exploits tribalism for evil purposes."

That, of course, does not take the stain of responsibility off the people who follow those leaders—a case that war-crimes prosecutors famously argued at the Nuremberg trials and a point courageous people have made throughout history as they sheltered Jews during World War II or refuse to murder their Sunni neighbor even if a militia leader tells them to.

For grossly imperfect creatures like us, morality may be the steepest of all developmental mountains. Our opposable thumbs and big brains gave us the tools to dominate the planet, but wisdom comes more slowly than physical hardware. We surely have a lot of killing and savagery ahead of us before we fully civilize ourselves. The hope—a realistic one, perhaps—is that the struggles still to come are fewer than those we've left behind. ◻

THE ROOTS OF GOOD AND EVIL

There are evolutionary advantages to nearly all aspects of human behavior. If empathy and goodness are writ deep in our genes, so too are cruelty and savagery. Both sides of our behavior have helped us survive

BY MARKHAM HEID

ON A JANUARY AFTERNOON IN 2007, WESLEY AUtrey, a 50-year-old construction worker and Navy veteran, was standing on a New York subway platform with his two young daughters. As the family waited for their train to arrive, a seizure took hold of a 20-year-old man standing near them. The man fell onto the tracks, and a moment later, the lights of an oncoming train appeared in the tunnel.

With little time to think, Autrey leaped down onto the tracks and covered the stranger's body with his own—pressing the still-convulsing man down into the floor of the track between the rails. Five cars rolled over the two of them before the train finally stopped. Neither man was badly injured.

Selflessness. Altruism. Kindness. Honesty. These are the qualities most of us associate with goodness. And when we hear of a person who demonstrates these qualities to a degree we find unusual—in many cases, practically unimaginable—we think of that person as a hero. Few of us ever display the brand of heroism Wesley Autrey did. But most of us strive to be good.

At our weaker moments, though, we may fail—often in ways that can leave us feeling just plain ashamed. "If you find yourself in a situation where you can get away with something, the impulse to do that can be too strong to resist," says Frank McAndrew, a professor of psychology at Knox College in Illinois and the author of *Out of the Ooze: Navigating the 21st Century with a Stone-Age Mind*. "We're all looking to do well, but we all have a dark side." When that dark side shows itself, we can act with dishonesty, duplicity, cruelty and selfishness—all of which we consider characteristic of evil.

If only we could shed these ignoble tendencies and fully embrace our better natures, the world would be a finer place. So why haven't we done that? To evolution-minded researchers like McAndrew, the answer is obvious: both good and evil have served our species well.

WHY WE ARE THE WAY WE ARE

YOU ARE A ONE-IN-A-MILLION SUCCESS STORY. YOU (like every other living thing on Earth) owe your existence to an unbroken chain of ancestors, stretching back to the primordial soup, who each did what was necessary to survive and pass on its genes to offspring. If even one of your ancestors had come up short—if they'd succumbed to a competitor or failed to land a mate—you wouldn't be here.

Evolutionary biologists understand this, and so they tend not to apply value judgments to human traits. Or, more accurately, they don't believe values determine the traits we possess. "The process of natural selection is value-free," says David Buss, a professor of psychology at the University of Texas at Austin and the author of *Evolutionary Psychology: The New Science of the Mind*. Whatever qualities humans have today—whether we view them as noble or deplorable—are the ones that would have increased our ancestors' odds for "replicative success."

A CAPACITY FOR KINDNESS AND GENEROSITY AS WELL AS GREED AND VIOLENCE EXISTS IN ALL OF US

Put another way, the stuff that makes us who we are—our capacity for kindness and generosity, as well as for greed and violence—exists in each of us because these abilities conferred some reproductive advantage on our forebears. "Our inherent human nature has adaptations that evolved to be beneficial not from a moral sense, but from a fitness sense," Buss explains.

Take, for example, a mother's love for her child. Maternal love may seem "natural" to us, but it does not exist in every species. Evolutionary scientists view it as an adaptation that offered our mammalian ancestors a clear advantage. "Maternal love exists in our species because ancestral mothers who had this motivational system had more surviving children than those who did not," says Leda Cosmides, a distinguished professor of evolutionary psychology at the University of California, Santa Barbara. Unlike the unfortunate children born to prehistoric mothers who didn't care much for them, the offspring of loving moms survived to pass that trait on to their own offspring.

A propensity to act with aggression, hate or violence would also have conferred advantages on our ancestors. "There are many adaptations that have evolved specifically to inflict costs on other human beings, and that includes adaptations to commit murder in certain predictable contexts," Buss says. While we all consider murder to be among the greatest evils, we don't tend to think the same of a homicide committed in self-defense. Back when life-or-death conflicts were regular occurrences, the ability and willingness to kill would have served your ancestors well.

Along with maternal love and situational aggression, innumerable other human adaptations arose in response to "selection pressures," which are the circumstances or factors that cause evolution to favor one "design" over another, Cosmides says.

The same process of natural selection explains, for example, why giraffes have long necks. One popular theory holds that as that species evolved, the members that had the longest necks would have been able to access food that their stub-necked buddies couldn't reach. The long-necked giraffes therefore survived and reproduced at greater rates than the short-necked giraffes. And so over hundreds of thousands of years, the giraffe's neck gradually stretched to the astonishing lengths we see now. This process continues today. Giraffes (and every other species on Earth) are constantly adapting in response to their ever-changing environments and the corresponding selection pressures.

That goes for humans too. Cosmides says that selection pressures and the resulting adaptations determine everything about us—from how we look to how we interact with one another. And it's our species's special ability to form groups and work in concert that helps explain our views on good and evil.

TOGETHERNESS IS HAPPINESS

IN MOVIES AND NOVELS, THE BAD GUYS ARE UNmistakable. "The evil villain of fiction is typically out to get what others have," says Jens Kjeldgaard-Christiansen, a pop-culture and moral-psychology researcher at Aarhus University in Denmark. "They care nothing for the good of the group or the community or society. They care only for themselves."

Whether it's a calculating killer or a mustache-twirling miser, we can all spot the baddie because he tends to exhibit one of two qualities: either he delights in pure malice or he acts selfishly and with only his own health or prosperity in mind.

These sorts of villains aren't only the stuff of fiction. "Someone who defrauds thousands of retirees out of their savings just to be rich . . . I think many people would describe that person as not just bad, but evil," says Joshua Greene, a professor of psychology at Harvard University and the author of *Moral Tribes: Emotion, Reason, and the Gap Between Us and Them*. Heroes are likewise hard to miss. They're honest and altruistic—acting for the good of the many rather than for themselves.

But why should this be so? Why do we prize selflessness and cooperation while vilifying greed and self-interest? Our ideas of what is right and wrong may stem from a concept evolutionary biologists call reciprocal altruism. Reciprocal altruism is a type of two-person cooperation, Cosmides says. "I do something for you, and later you'll do something for me."

That give-and-take serves as the glue that holds groups together—whether that group is a small band of hunter-gatherers or the citizens of a modern society. One of the big assumptions undergirding the role of reciprocal altruism in human evolution is that groups of people, even when they're unrelated, are better off than loners. Whether hunting woolly mammoths or cultivating wheat for food, human beings thrive when they work together. And so it makes sense that natural selection would favor cooperation.

"As an evolutionary psychologist, you always think about what life would have been like way back when," McAndrew says. And for a very long stretch of human history, "way back when" was a time when humans lived in groups of just 25 to 50 people.

"Human societies didn't get significantly large until probably approximately 40,000 years ago," says Richard Wrangham, a professor of biological anthropology at Harvard and the author of *The Goodness Paradox: The Strange Relationship Between Virtue and Violence in Human Evolution*. But Wrangham says modern humans actually started forming the kinds of social relationships that underpin the evolution of our social psychology roughly 300,000 years ago. And so in order to understand why humans today think and act the way we do, it's necessary to consider which traits and behaviors would have been advantageous back when we lived in much smaller, more intimate societies.

> GROUPS OF PEOPLE, EVEN WHEN UNRELATED, ARE BETTER OFF THAN LONERS

"To be successful in those small groups, to have allies and to be attractive to mates, you needed to have a good reputation, meaning you were known as someone who could be counted on," McAndrew says. "If the group did well, you did well, so it made sense to make some concessions and personal sacrifices."

Those concessions, while not unique to our species, involve a type of group cooperation that is at least unusual in nature. "Cooperation with individuals you're not related to is rare—humans, chimpanzees and dolphins are three agreed-upon examples," she says. Even in chimps and dolphins, cooperation is limited.

The immense benefits and complexity of human cooperation go a long way toward explaining the traits we consider to be good or virtuous, as well as those we think of as vile or sinister. If we are drawn to the honest and selfless, we recoil from the treacherous or selfish. It makes sense that we label the second group evil. "Evil people are committed to exploiting other people," Greene says.

Throughout human history, the stories we tell each other have helped to cement these good-and-evil concepts in our heads. "Popular culture is absolutely bursting with stories of individuals facing terrible odds in the form of malicious agents who care

HISTORIC DUALITY

The Altruistic, The Atrocious

The human pageant is filled with individuals who have inspired our awe for either their goodness or their malevolence. The Gandhis and Mother Teresas remind us of the potential of our baffling species. Sadly, so too do the Pol Pots and Pinochets.

MOHANDAS GANDHI
The father of India, he headed the country's nationalist movement against Britain with a doctrine of nonviolence and peaceful protest.

MOTHER TERESA
The beatified Roman Catholic nun, born Agnes Gonxha Bojaxhiu, dedicated her life to educating and caring for the sick and poor.

MARTIN LUTHER KING JR.
Winner of the Nobel Peace Prize, he transformed America with the power of his vision, dream and words.

THE DALAI LAMA
The exiled spiritual leader was awarded the Nobel Peace Prize in honor of his nonviolent campaign for Tibetan independence from China.

only for themselves," Kjeldgaard-Christiansen says. "In order to overcome these odds, our heroes have to set aside their differences and work together." He jokes that this story line propels 90% of Disney movies. But it also turns up throughout humankind's written and oral history. Although stories alone don't establish our sense of right and wrong, "stories may help to lay down such values—to make them matter to us and to make us act accordingly," he says.

If group cooperation and self-sacrifice are so fruitful for humans, you'd think we'd have trudged off the savanna bringing only those with us and left the nastier behavioral baggage—deceit, greed, bigotry, violence—behind. Why didn't we ditch these a long time ago? The answer is that these characteristics must have been a benefit to our ancestors—and they probably still help us today.

"If a member of a group cheats—meaning he takes without giving in return—that can be a good strategy so long as he isn't found out," McAndrew says. For example, if a group of early humans were faced with a food shortage, those who stole from the group's supply or lied about how much they could contribute may have survived while some of their more honest pals perished. "We always encourage positive and desirable behaviors in other people, but for us it may not always be to our advantage."

In truth, the humans most likely to survive and reproduce were the ones who possessed a measure of both good and evil, McAndrew says. That is, they weren't so brazenly selfish or untrustworthy as to get themselves killed or kicked out of their group. But they had enough self-interest to ensure that when times were tough, they'd make it through. In the end, human beings are very like every other animal on Earth in that they act in their own best interests, and if that happens to mean acting in the group's interest too, fine.

But while a small measure of selfishness and underhandedness is typical, the generous and trusting nature of groups has still allowed space for unscrupulous actors—what evolutionary biologists refer to as free riders. These are people who exploit communities by taking more than they give in return.

In some cases, groups are willing to put up with a little free-riding as long as those members also contribute something of value. "Just because I'm getting less from you than you are from me doesn't mean it's not worth cooperating," Cosmides says. "An individual may be exploitative in some circumstances, but when my group is attacked by a neighboring band, I still want him fighting on my side."

Also, some behaviors or characteristics we normally view as evil can seem right and valuable in certain contexts. Like war.

WHEN BAD CAN BE GOOD

WAR IS OLDER THAN WE ARE. OUR PRE-HUMAN ancestors fought one another, and historians have found traces of war in every era and culture. War's ubiquity helps explain the persistence of characteristics we tend not to appreciate in peacetime.

Violence and aggression are two examples. "It was probably never good to have this mindlessly vio-

JOSEPH STALIN
The dictator of a totalitarian state was responsible for the loss of millions of lives during his quarter-century rule of the Soviet Union.

AUGUSTO PINOCHET
After seizing power in a military coup in 1973, the general went on to rule Chile with an iron fist, torturing and killing thousands in the process.

ADOLF HITLER
The Nazi dictator instigated World War II, engineered the Holocaust and still mystifies scholars studying the human capacity for savagery.

OSAMA BIN LADEN
The Saudi millionaire is the 21st century's icon of evil, killing thousands on 9/11 and in attacks on U.S. embassies and the U.S.S. *Cole*.

POL POT
The leader of the brutal Khmer Rouge oversaw the murders of close to 2 million people in Cambodia and insisted, "My conscience is clear."

lent person, but the guy who was aggressive against the right people at the right time, like in battle, did well," McAndrew says.

So we contextualized the violence and even the act that in other contexts we'd call murder. "Probably no other class of human action is judged to be more evil than premeditated murder," Buss writes in *The Social Psychology of Good and Evil*. "And there may be no other class of actions that inflicts a greater fitness cost on the victim." But while few of us think of murder as moral, many of us allow that killing another human is justified if the person doing the killing is a soldier taking the life of an enemy combatant.

The influence of group cooperation on human evolution helps explain not only the traits we view as right or wrong but also many that facilitate or support these behaviors. In some cases, qualities or practices we tend to view harshly may play vital and beneficial functions in human societies.

Gossip is a good example. "People have this knee-jerk reaction to gossip as something that's negative, but gossip exists for us to be able to assess the reputations of other people," McAndrew says. Gossip can help you learn about and judge the fitness of someone you don't know well, he explains. It also helps keep people honest. "If you know people will talk about you when you're not around, that forces you to stay in line," he says. "It's perceived as bad, but it's really only bad for the person being gossiped about."

Our capacity for guilt or remorse is another example of an adaptation that allows us to function well in groups. "Emotions like guilt evolved because people who didn't feel guilty didn't cooperate or apologize, and so they were ostracized from groups," McAndrew says. Suspicion is another one. "In a situation where trusting the wrong person could mean life or death, it was probably better to be suspicious and to err on the side that leads to the least risk," he says.

Cosmides adds to this list. "Natural selection cannot favor adaptations that help us engage in cooperation unless there are mechanisms to identify individuals who take but don't give," she says. "So we have very specialized mechanisms that help us to look for cheaters."

Perhaps our most specialized mechanism for identifying spurious individuals is our ability to empathize—to get inside others' heads and see the world as they do. "We have machinery that allows us to predict other people's behavior based on their mental states, and in ways more elaborate than other species," she says.

Such an ability to mind-read and feel others' pain not only helps us intuit their intentions and motivations but also saves us from breaking ties with people who may turn out to be helpful collaborators. "It would be a mistake for me to withdraw from you if you just got sick, or you forgot, or something else prevented you from being a good cooperator," she says. Our ability to empathize helps us distinguish forgivable failures from malicious ones.

At the same time, our capacity to climb inside other people's heads enables us to engage in deceptive or underhanded behavior ourselves. If you can

predict another person's intellectual and emotional reaction to your behavior, that makes you a much more formidable manipulator.

In more ways than one, it's the good in us that opens up space for evil. Just as light creates shadow, human honesty and kindness make deception and cruelty possible.

FROM BAD TO 'EVIL'

DURING HIS 2002 STATE OF THE UNION ADDRESS, President George W. Bush deployed the phrase "Axis of Evil" to describe those foreign governments his administration viewed as excessively hostile or dangerous to the United States. To the ears of evolutionary psychologists, the president's use of the word "evil" surely set off alarm bells. "Ideas have utility in the same way weapons do," says Harvard's Greene. "The idea that the other group or person is evil—not merely bad, but evil—is very motivating and radicalizing."

When it comes to members of our own group, he says, we don't throw around the word "evil" very often. If a relative or friend does something despicable, we might condemn the act, but we rarely go so far as to call the actor "evil." It's when we speak of people outside our circle of cooperation that we whip out the "evil" talk.

DEPICTING AN ENEMY AS EVIL OR SUBHUMAN ALLOWS US TO FORGIVE OUR OWN IMMORAL BEHAVIOR

Why? Greene says we tend to view "evil" people or groups as bad in a pure sense—more like the villains of fiction than real-life human beings—and therefore beyond reasoned compromise or negotiation. "It's always very tempting in a conflict to say that the other side is evil," he says. It defames and dehumanizes, but it motivates your side.

Others agree. "We divide the world into those who are good and those who are evil because such a simple moral world simultaneously validates our own worldview and allows us to fight those who think otherwise with a clear conviction that they are in the wrong and need to be stopped," Kjeldgaard-Christiansen says. Of course, there are people and groups out there who deserve the "evil" tag. "But we often employ the 'evil' label frivolously in order not to have to engage with the moral complexity of our own and others' conduct," he says. Viewing the enemy as evil also allows us to forgive ourselves for acting in ways that would otherwise run counter to our own sense of morality and righteousness.

Depicting an enemy as somehow subhuman—as "vermin" or "parasites" or "animals"—can also help organize and motivate the members of one group to do battle with another, Buss says. "Effective manipulators, from politicians to warlords to gang leaders, use these terms to exploit our adaptations for coalitional warfare."

For those people who really do cross the line from merely the bad behavior of which we're all capable to the truly evil, what is it that provides the push?

"The standard social-science model holds that all bad stuff comes from a person's immediate environment," Buss says. He mentions bad parenting or an unhealthy culture as two of the "usual suspects." But, he says, he believes the vast majority of evil actions can't be explained by these factors alone. Instead, he argues that we're all pre-loaded with evolutionary adaptations that, if "activated" by our environment or circumstances, could lead us to engage in evil behaviors. "We all have the adaptation to develop calluses on our skin in response to friction," he points out. "Similarly, the human mind has inherent adaptations that can be activated or deactivated in different circumstances."

In his book *The Murderer Next Door*, Buss tells the story of a Houston woman named Clara Harris who, in 2002, hit and killed her husband with her car. After running him over in a hotel parking lot, she proceeded to back over him three more times. She did all this while her grown stepdaughter—the biological child of the man she was murdering—was sitting in the car with her, unable to escape.

That seems to be pretty much straight-up evil. But Harris ended up in that hotel parking lot, Buss writes, because she'd recently discovered that her husband was having an affair with a co-worker. Not only that, but the cheating husband had chosen to bring his mistress to the very hotel where he and Harris had gotten married a decade earlier.

That doesn't remotely forgive Harris's actions. But in light of these circumstances, many of us would at least judge her response less harshly. Buss says that this is just one example of context activating a built-in human adaptation for evil behavior—the kind most of us would claim we aren't capable of committing. Sexual competition in particular, Buss says, is one of the more common sparks that can lead both men and women to commit murder.

Across cultures and eras, societies have constructed many institutions meant to discourage evil behavior. The most obvious is humanity's system of laws, courts and prisons, which are designed to punish those members of a community who step out of line.

Along with our legal system, cultural norms also discourage cheating, stealing, lying and other acts we consider wrong or evil. And like us, these norms are constantly evolving. "Talking about evolution can make everything sound like it comes down to biology, but the rules your group sets up as OK or not OK set the boundaries of what is good and evil, and these are always changing," McAndrew says. Certain forms of male sexual assertiveness, for example, which were once considered acceptable, are now manifestly out-of-bounds, and that benefits both genders and the culture as a whole.

But just as contemporary life works to rein in some of our more aggressive or duplicitous inclinations, it also unshackles some types of behavior that would have been impossible to get away with when humans lived and roamed in small, intimate groups. "It's much easier now to be a taker rather than a giver," McAndrew says. "The internet and its anonymity allow you to get away with a lot more cheating without fear of being caught." The nature of many online interactions also disarms many of our most potent lie-detection adaptations—including our ability to read faces and body language, and to use what we know about a person to intuit intentions.

But we'll adapt, and our conceptions of good and evil will undoubtedly evolve with the times. "When people think of evolutionary psychology, they may think everything is determined by our genes," Greene says. "But our genetics interact in complicated ways with our cultural and individual experiences."

The way we manage our good and evil impulses will always change. The existence of both never will.

The Ugly Truth About Sex and Violence

If you watch cop dramas, you know the victim's romantic partner is always the prime suspect. That element of fiction is ripped from real life. Domestic violence makes up one third of felony violence cases, according to the Bureau of Justice Statistics. Throw in crimes men and women commit against romantic rivals, and you end up with a pretty big chunk of violent felonies.

Why do romantic relationships drive so many to act so aggressively? "Intersexual competition and intimate partner violence have been very beneficial adaptations in terms of reproductive success," says David Buss, a professor of psychology at the University of Texas at Austin and the author of *The Murderer Next Door.*

Buss says that for much of our species' history, men willing to fight and even kill male competitors were more likely to retain their mates and therefore pass their DNA on to offspring. Within a relationship, men may have found physical violence directed at a partner an effective—if savage—means of preventing infidelity.

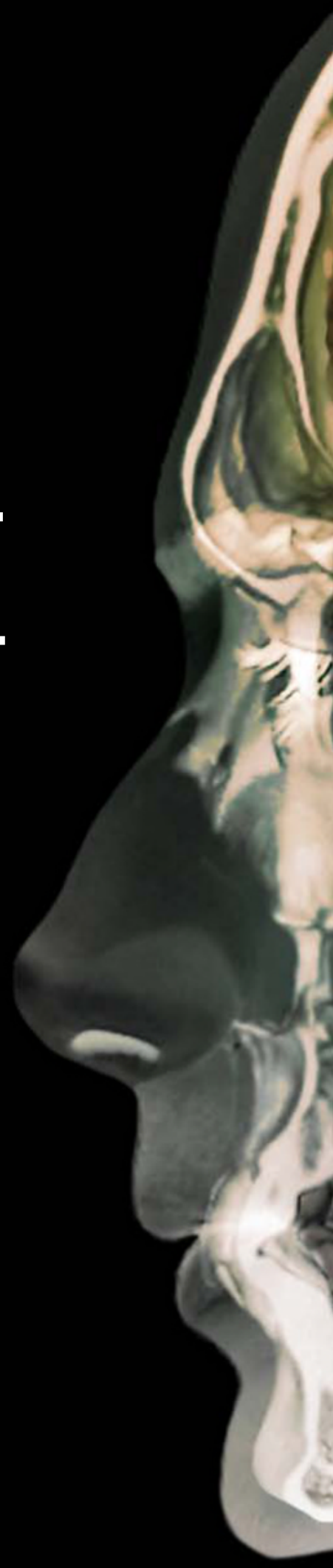
In some cases, murdering an unfaithful mate may also have conferred some perverse "fitness benefits" on males. If a woman had sex with other men, her cuckolded partner could end up devoting his resources to caring for that male's offspring. "Paternity uncertainty is a major predictor [of homicide]," Buss says. Even when paternity is known, violence can follow. Children are up to 100 times as likely to be abused or killed by a stepparent as by a biological parent.

Although men are typically the aggressors, women are also capable of extreme acts of violence. Once again, infidelity is often the cause. In some specific circumstances, Buss says, women are much more likely than men to kill their own children. While rare, this form of infanticide tends to occur in predictable contexts. "A woman who is young and has many years of reproduction ahead of her and no male provider—that's a predictor," Buss says. Tens of thousands of years ago, a woman in this position would have been unable to care for a child on her own, and the infant would probably have made her unappealing to prospective mates.

Not all evolutionary psychologists agree with Buss. "In terms of humans having multiple adaptations to murder, I've taken what some might consider an extreme position," he says. He also makes it clear that most people dealing with infidelity or similar triggers do not react violently.

But crime statistics often do support Buss's take that evolution has equipped humans with multiple "homicidal adaptations." It's an ugly—but perhaps unavoidable—truth. —M.H.

WHERE THE DEMONS PLAY



How do the brains of people who commit terrible acts differ from those of people who don't? Science is answering that question—and in the process finding ways that may help nudge the worst of us back toward the light

BY LISA LOMBARDI

IMAGINE SPENDING YOUR WORK DAY PEERING into the brains of psychopaths. What you'd learn wouldn't be pretty—but it would surely be important.

Human nature—the good and the bad, the sublime and the wicked that is part of all of us—is not an easy thing to explain. The closest thing we've got to an answer is the brain. Researchers expend no shortage of time and energy investigating empathy, and no wonder: it's essential to building relationships, and the more empathic we are, the more communities and society as a whole can flourish. Determining the seat of empathy's opposite—cruelty, malice, evil—might be even more important. Perhaps if we find what's broken we can figure out ways to fix it.

That idea—that some crimes may be attributable to a tangle of faulty wiring in the brains of criminals—has long fascinated researchers, among them neuroscientist Jean Decety, head of the Social Cognitive Neuroscience Lab at the University of Chicago. Decety has made a research career of using magnetic resonance imaging (MRI) scans of the brain to investigate what drives some people to commit heinous acts.

In one of his studies, Decety split violent prisoners into three groups by degree of clinical psychopathy, a personality disorder marked by lack of empathy and remorse. The prisoners were shown images of painful events such as stepping on a nail and were asked first to imagine that pain being inflicted on them, and then on other people, while the researchers conducted the MRIs. Psychopaths are often thought to be lacking in emotions, but what showed on the scans was something more complex: the most highly psychopathic inmates were capable of imagining pain, but they had striking differences in functional connectivity—how brain regions communicate with each other—depending on whom they thought was suffering.

"If they imagined themselves, then the brain network activated was typical, like a non-psychopathic person," says Decety. "But when they imagined another person, the pattern of brain response was very different: no activation was detected in the region of the prefrontal cortex that is called the ventromedial prefrontal cortex [vmPFC]."

Located in the frontal lobe at the bottom of the cerebral hemispheres, this region connects with other cortical and subcortical circuits and is involved in many social-cognition functions, including behavior and morality. "Lesions of the vmPFC disrupt social and moral judgment and are associated with lack of emotional reactions," Decety says.

So the scans suggested that the prisoners could feel their own suffering but not another person's. More disturbingly, some of the inmates actually seemed to enjoy the idea of another person in pain: the higher prisoners scored on psychopathy, the greater the response in the ventral striatum—a part of the brain that lights up when we are experiencing pleasurable responses to stimuli like money or drugs. "This region is involved in reward processing and is often anatomically larger in psychopaths," Decety says. "Psychopaths may find the distress of others positively arousing."

MOST OF US LIVE IN THE MIDDLE OF THE PSYCHOPATH-EMPATH SPECTRUM

This study and others are helping scientists unravel how human beings develop extremes of empathic and psychopathic behaviors. Serial killers and even pedestrian felons, after all, commit terrible crimes with seemingly little or no remorse, while everyday heroes display remarkable compassion, doing everything from tending to Ebola victims in Africa to putting their own life in danger to jump onto a train track to save a stranger's life. Meanwhile the rest of us live somewhere in the middle of the psychopath-empath spectrum.

"Understanding neuroscience can tell us a lot about how the brain works and how we can 'hack' the brain to better manage and improve our well-being," says Santosh Kesari, a physician, neuro-oncologist and neuroscientist at the John Wayne Cancer Institute in Santa Monica, Calif. "We have learned that different regions in the brain are involved in various emotional and psychological states that modulate empathy, kindness or psychopathologic behaviors."

Caregivers in the Democratic Republic of the Congo endangered their own health to care for Ebola patients.

A GREAT DEAL of the behavioral riddle begins with empathy—the ability to understand and share the feelings of other people. Empathic tendencies show up first in infancy and continue to develop over a lifetime, shaped both by nature and nurture: studies of identical and fraternal twins reveal that genetic makeup controls one third to one half of a 2-year-old's empathy. That means that the remaining 50% to 67% is dependent on the environment in which a child is raised, says Erin Clabough, an assistant professor of biology and neuroscience at Hampden-Sydney College and the author of *Second Nature: How Parents Can Use Neuroscience to Help Kids Develop Empathy, Creativity, and Self-Control*. "Half or less of your child's empathetic behavior is already wired into her brain," she says. "The rest of it we are either teaching—or not teaching—our kids."

Babies as young as four months display empathy, according to a 2017 study published in *Developmental Cognitive Neuroscience*. And that empathy continues to grow as the brain matures and interacts with the environment. "This process continues throughout our entire life and is shaped by our values, cultures and social norms," says Decety.

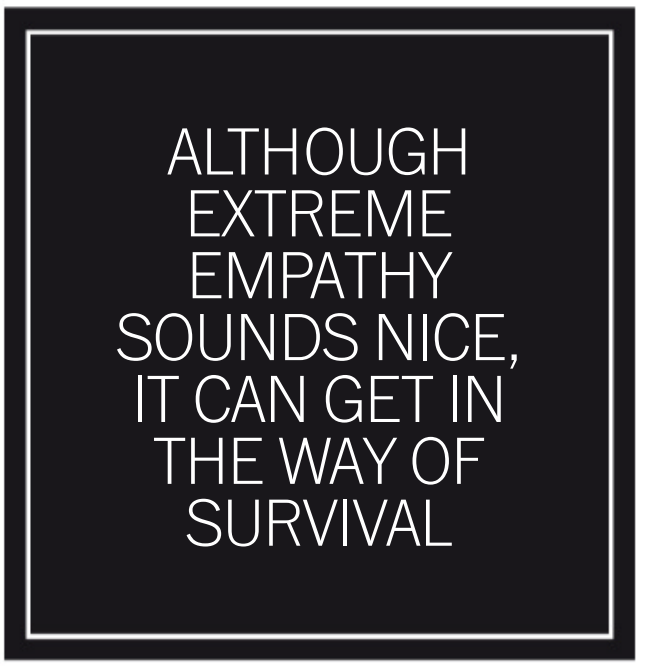
Over the course of that time, we actually develop and refine two different types of empathy. There is emotional empathy—when you feel the empathic response viscerally. Consider wincing at someone else's physical pain, crying at someone else's sorrow. It makes no rational sense since you're not the one who's suffering, but you react all the same. In the alternative, there is cognitive empathy—a cooler, deductive process in which you witness someone else's circumstance, unravel what is going on and respond accordingly. When a moving van pulls up to your neighbor's house, perhaps the family is being evicted, in which case you feel sad for them, or perhaps they've struck it rich and are moving to a much better house, in which case you're happy—and maybe envious.

Cognitive empathy comes from the regions of the brain that are spread throughout the cortex, including the superior temporal sulcus and the medial prefrontal cortex. As the very term *cognitive empathy* plainly suggests, it's a rational thought

process. "To raise a compassionate person, we must teach kids about how people feel, as well as what people are thinking," says Clabough.

Emotional empathy, by contrast, is a less conscious thing, an experience that may spring up from the primitive parts of our brain, including the right supramarginal gyrus, which is part of the cerebral cortex, and the limbic system, which includes the amygdala, where primal emotions are processed. "Emotional empathy predates the development of cognitive empathy because the brain processes behind it are much simpler," explains Clabough.

Actually acting on the empathy we're experiencing seems like the next obvious step, but it's one we don't always take. "Acts of compassion require you to either think or feel first, but thinking and feeling do not always lead to compassionate acts," says Clabough. Any of us who have felt teary-eyed at an ASPCA commercial without reaching for our checkbook, or felt a pang while walking by a homeless person without dropping a dollar in his cup, knows this fact firsthand.



Yet if you don't offer help, it's not necessarily a moral failing. "Being nice and empathetic is not always a good thing," says Decety. Although extreme empathy sounds nice in the abstract, it can get in the way of survival. Being just a bit selfish helps us protect our safety and ensures the well-being of our family. Also, in some situations, it might be better to consider the good of the group rather than identifying too closely with one person. Remember the "trolley problem"—that ethics riddle in which you have to decide if you would divert a trolley that is about to hit five people on train tracks by having it hit one person off to the side instead? Psychopaths have no problem deciding to sacrifice that one life, research shows, but empaths struggle with the idea of actually pulling a lever that takes a life—even if it saves other lives.

"We have evolved both ways to help others—but also the opposite," Decety says. "To survive, a person needs to be flexible and choose what's best depending on the situation and one's own goals."

Getting back to the example of walking quickly by a homeless person: Let's say it's a dark, deserted street, or the person is acting erratically or seems severely, contagiously ill. You're just protecting your health and safety by hurrying by.

When we do act, when we do offer some kind of assistance, we're rewarded—not necessarily by the person we've helped or by the appreciation of others, but by our brains, which deliver a pleasurable kick not entirely dissimilar to the high that comes from sex or drugs. "Some people can become addicted to doing kind acts if there is a positive feedback—feelings of goodness and happiness in the brain reward center, which is mainly mediated by dopamine pathway," Kesari says. And in fact, happiness research conducted by psychologist Sonja Lyubomirsky at the University of California, Riverside, supports the idea that "paying it forward"—doing simple good things for others—is associated with greater happiness.

This also helps explain why, when most people do something kind—say, buying a hot meal for a homeless person on their way home from work—it feels so satisfying they want to do it again. Maybe they even get a smile or a thanks in return and the feedback further fuels the impulse to be a stand-up citizen.

PSYCHOPATHS, ON THE other hand, don't experience that pull to feel good by doing good. The very label suggests someone fairly crazed with evil, but in fact psychopaths aren't disoriented or out of touch with reality, and they don't experience the delusions, hallucinations or intense subjective distress that characterize most other mental disorders. They are rational and aware of what they are doing and why. According to the Hare Psychopathy Checklist–Revised (PCL-R), which is a tool professionals use to assess whether someone has these tendencies, psychopaths are not only lacking in empathy; they are also grandiose and manipulative.

Worse, for the people who cross their paths, they have trouble putting the brakes on their worst im-

pulses, a trait explored by Harvard researchers in a 2017 study published in the journal *Neuron*. The team, led by senior study author Joshua Buckholtz, went into medium-security prisons with portable MRI scanners and put 49 inmates through a test of ability to accept delayed gratification by choosing between a small sum of money right away or a larger one in the future. The scans revealed a weak connection between the reward processing taking place in the ventral striatum and the contemplation of outcomes and consequences that's supposed to take place in the ventral medial prefrontal cortex. The greater the deficit in this connection, Buckholtz found, the more criminal convictions the inmates turned out to have.

The implication: a reward-system dysfunction that causes the subjects to overvalue the payoff and undervalue the cost. That imbalance is bad enough when you're tempted by the dessert you know you'll regret later. It's much worse when the temptation is the money behind the teller's window in a bank and the consequences are arrest and imprisonment.

Impulse control—based at least partly on sober consideration of consequences—is admittedly a higher-order skill. Even in the most emotionally grounded of us, that kind of take-it-slow thinking isn't fully booted up until we're in our 20s, which is why so many teens and young adults—especially teen and young adult boys—get into trouble with drinking, driving and brawling. It's also why the young wolves of Wall Street who make risky bets and sink a fund or an entire company are so often, well, young. But they do grow up and learn to put on the brakes eventually, whereas psychopaths often never do.

In fairness to psychopaths, most of them are not criminals, and similarly, most criminals are not psychopaths, Decety points out. In fact, many people have brain scans that resemble those of psychopaths but live normal, productive lives.

So what helps someone land in a corner office rather than a jail cell? Well, for starters, sometimes a little bad can be very good. Egotism, narcissism and grandiosity are not generally traits we applaud, but in balance with other attributes, they are essential qualities of all of the world's great thinkers, leaders and orators. Most American historians believe that narcissism, for example, is practically the table stakes to run for president. How else would you convince yourself that in a nation of 325 million people, you are the one best qualified to lead?

In other people, of course, the darker qualities do not exist in proper balance with the brighter ones, crowding them out. They can be helped—and that's where nurture at least partly comes in. Depending on the severity of the underlying psychopathy, it is possible to develop alternative ways to care about and collaborate with other people and to learn to curb terrible behavior. Even if you lack emotional empathy, research shows, you can build cognitive empathy, which helps you in turn build healthy relationships and get along more effectively in the world. And by understanding what is going on in the brain and enlisting the help of everything from meditation to behavioral therapy, experts believe that even hardened criminals serving long prison sentences can be taught to make better choices.

EXPERTS THINK EVEN HARDENED CRIMINALS CAN LEARN TO MAKE BETTER CHOICES

"We can certainly help psychopaths, especially when they are young, find alternative avenues to think and navigate the social environment," Decety says.

But the window for this learning is not open forever, and the earlier we start teaching cognitive empathy, the better. "If we don't nurture this aspect of child development, it's more likely that people will develop sociopathic tendencies," says Clabough. At home and in schools, doing simple things such as empathizing with kids, talking about other people's feelings and perspectives, and modeling what compassionate behavior looks like can help build this all-important skill.

A little kindness training, it turns out, just might help vulnerable people resist their worst tendencies. And everyone benefits from that. □

DIAGNOSING THE DISEASE CALLED 'EVIL'

Are the very bad also very ill? Is it even possible for emotionally healthy people to commit some kinds of horrific acts? And if evil is illness, what does that mean for personal responsibility? Science is scrambling for answers

BY BARBARA SADICK

TED BUNDY, THE MOST NOTORIOUS SERIAL KILLER in American history, was smart, personable and charming. He worked at a suicide crisis hotline in Seattle and at the Department of Emergency Services in Olympia, Wash. In neither place did anyone suspect the evil he was concealing.

He killed his first victim in 1974 and continued to kill in Washington, Colorado and Florida until he was arrested in 1979. Once a law-school student, he defended himself in a Florida trial at which he was sentenced to die. Bundy filed many unsuccessful appeals but eventually confessed to raping and murdering 36 female college students whom he had lured with his easy charm and good looks. On Jan. 24, 1989, he was put to death.

Bundy, by any measure, was an evil man who committed evil acts. Almost nobody disagrees with that. But paradoxically, almost nobody can agree on what we mean by the term "evil" at all—and that includes psychiatrists, psychologists and other experts who debate and discuss the word without consensus.

"The term "evil" is an ancient concept that carries a lot of philosophical and theological baggage," says Stephen Diamond, a Los Angeles clinical and forensic psychologist. Many psychiatrists and psychologists are wary of using the term, while others—like Carl Jung, Rollo May, M. Scott Peck and Diamond himself—have argued for its use only when describing certain defined and extremely destructive behaviors.

Scott Bonn, a criminologist and professor and the author of the suspense novel *Evil Guardian*, believes in the social construction of evil—the idea that evil does not exist in any objective way, but only in ac-

tions that are defined by society as evil. A person who has antisocial personality disorder, for example, might be diagnosed as mentally ill and thereby get something of a moral pass for the lying, deceit and exploitation associated with the condition. Other people who have not been diagnosed would be held more accountable for the same behavior. In the first case we'd be talking about illness; in the second case, something closer to evil.

Some clinicians differ, believing that mental illness is a necessary precondition for evil. Mentally healthy people simply don't behave that way. Not all people suffering from antisocial personality disorder or, say, psychopathy—characterized by manipulativeness, superficial charm, pathological lying and lack of remorse—will behave in evil ways, but people who behave in evil ways all suffer from those or other conditions. That's a simple way of framing a complex problem, and it removes some of the stigma from people who do suffer from one of the conditions and yet succeed in keeping their behavior in check.

But it's also an incomplete definition, says Elliot D. Cohen, founder of the National Philosophical Counseling Association, inventor of Logic-Based Therapy and a professor of philosophy at Indian River State College in Fort Pierce, Fla. It's important, Cohen stresses, also to take into account conditions such as neurologic damage and other brain anomalies.

Psychologists who make this case often point to Charles Whitman, who shot 43 people and killed 17 of them from a sniper's nest at the top of a tower at the University of Texas at Austin in 1966. The siege ended only after Whitman was killed by police. In his suicide note he complained of headaches and troubling thoughts and requested, "After my death, I wish that an autopsy would be performed on me to see if there is any physical disorder."

It was performed, and there was a disorder—a pecan-size brain tumor affecting multiple regions including the amygdala, which governs primitive emotions like fear and anger. Forensic scientists still disagree on the extent to which the tumor caused the rampage, but the question is one that's impossible to ignore in studies of how to prevent evil acts. "Unlike many who have perpetrated serious crimes," says Cohen, "an individual who has . . . a brain dysfunction probably will not respond to therapeutic intervention such as cognitive behavior therapy."

Other experts, like Diamond, believe it's essential for society to be able to recognize the existential reality of evil in individuals, groups and governments—regardless of cause—rather than blinding themselves to it and depriving themselves of some means of describing it. To deny the reality of a thing called evil makes us more susceptible to it.

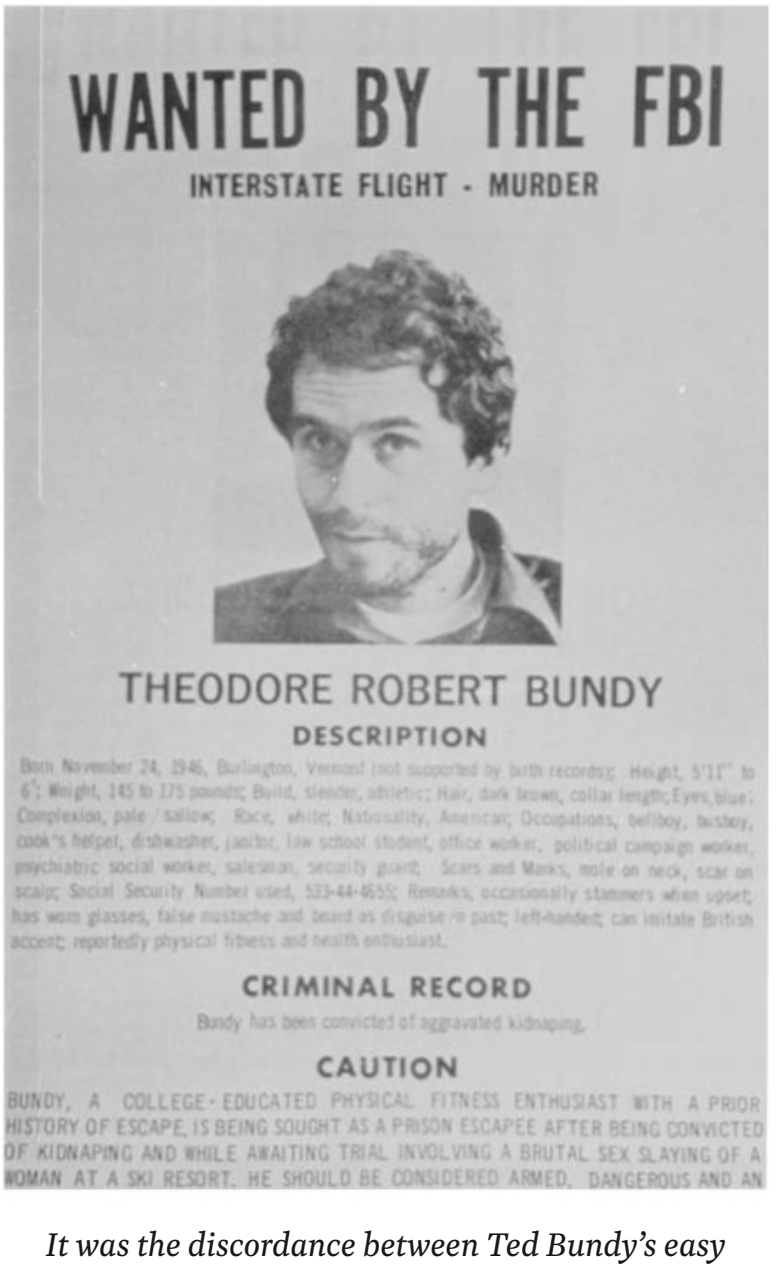
"By human evil, I mean those attitudes and behaviors that promote excessive interpersonal aggression, cruelty, hostility, disregard for the integrity of others, self-destructiveness, psychopathology and human misery in general," Diamond says.

However, unlike some clinicians who have called for a new diagnostic category of evil to be included in the Diagnostic and Statistical Manual (DSM), Diamond does not support the addition of an "evil personality disorder" to the list that includes narcissistic personality disorder, paranoid personality disorder and others. He sees that as far too prejudicial and stigmatic for patients. The closest diagnosis in the DSM-5 mental-health professionals have today for diagnosing a persistent pattern of evil behavior would be the antisocial personality label.

The problem, says Diamond, is that we are all capable of engaging in a single illegal, deceitful, irresponsible, impulsive, manipulative, cruel, destructive or even violent antisocial act, but those diagnosed with antisocial personality disorder, narcissistic personality disorder or a mixture of the two that Diamond calls psychopathic narcissism do so with predictable regularity. The severity, intensity, chronicity and quantity of evil behavior must be taken into account. It's easier to do this when it comes to career criminals like Charles Manson, serial killers like Bundy and Jack the Ripper, or mass murderers like Adolf Hitler. But it's not just a matter of numbers. A mob hitman who kills coldly but infrequently, acting not on urges but on orders, is clearly operating from the same remorseless place as the killers we think of as monsters, even if he's not as prolific.

Diamond says that forensic psychologists working with the criminal-justice system deal with this reality of evil daily. Psychotherapists do too, but they generally tend to see less severe examples. How a clinician views evil in the 21st century depends not only on that practitioner's historical or cultural context or religious background but also on the particular training, experience and theoretical orientation.

"When diagnosing violent or otherwise destructive individuals, we must first ask ourselves certain questions: Does the violent offender meet the min-



It was the discordance between Ted Bundy's easy charm and his madman's savagery that made him the literal poster boy for the mystery.

imum diagnostic criteria for some sort of formal medical disorder as specifically defined by DSM-5?" Diamond says. "Might this person suffer from some minor or major medical or neurological impairment influencing his or her behavior, such as epilepsy, dementia, encephalitis or thyroid dysfunction or from acute psychosis, schizophrenia or bipolar disorder?"

Those questions raise even more complex ones, involving moral and legal responsibility: Are you to blame for your crimes if you're manifestly ill? Five hundred years ago, such a person probably would have been seen as suffering from demonic possession. The ostensible treatment for that may have been awful—say, trepanning, the practice of drilling holes in the skull to release the invading spirits. But it would not have been framed as a punishment.

In the modern era, some of this survives in the criminal-insanity defense. The definition is narrower than it seems. It's not enough just to have a clinical condition; perpetrators must genuinely not know that the act they committed was wrong or, if they did know, they did not have the capacity to stop.

Michael Stone, a professor of clinical psychiatry at Columbia University, a practicing psychiatrist and the author of *The Anatomy of Evil*, has spent years interviewing mass murderers and serial killers. He has also served as an expert witness at trials and has seen that many who commit heinous acts show little or no remorse. Through his experience, he has identified narcissism and aggression as the two top personality traits that define what he considers evil.

Stone identifies Bundy as a psychopath, which is easy enough. But he applies the same label, as well as narcissistic personality disorder, to Bernie Madoff, the former securities trader sentenced to 150 years in prison in 2009 for a decades-long Ponzi scheme that cost investors $65 billion. In Madoff's case, and those of others like him, the key is malicious intent and indifference to consequences. Something similar applies, say, to manufacturers who produce products that they know are harmful. "These people may manage to escape being defined by the DSM-5 as having a mental disorder and may be rational, charming and successful," Cohen says, "yet be quite evil, even if they do not qualify as mentally ill."

Although the numbers are small, some people, says Stone, are born with a lack of empathy and compassion, even if their deficits fit no particular diagnosis neatly. For most people with that suite of traits, however, the condition is learned, not congenital. "The largest percentage of people who end up doing something we call evil have been brought up in harsh, difficult and abusive circumstances and have had their good feelings drowned in all the misery they have had to endure," Stone says.

Evil will surely never be diagnosed with the clarity of, say, a viral or bacterial disease. But that doesn't make the effort at least to understand evil better any less urgent. Diamond points to what Carl Jung—one of the fathers of modern psychology and the person who introduced his concept of the "shadow," the dark side of human nature—said in 1961: "Today we need psychology for reasons that involve our very existence. . . . We stand face to face with the terrible question of evil and do not even know what is before us, let alone what to pit against it. . . . We have no imagination for evil, but evil has us in its grip. . . ."

Jung's dire warning is at least as relevant today—and our need to understand evil just as pressing. ◻

GOOD DEEDS, GOOD HEALTH, GOOD LIFE

It's not always easy to motivate ourselves to help other people, but it increasingly seems it's in our interests to try. A growing body of research shows the health benefits of acting for others

BY KATE ROPE

RICK ADLE CREDITS HELPING OTHERS WITH GETting his life back after a gruesome yard-work injury 25 years ago. Adle, a commodities trader in Atlanta, Ga., was pulling up tree stumps in his front yard when the 6,000-pound tractor he was driving flipped over. Adle's pelvis separated from his spine and he broke his back in three places.

"They thought I wasn't going to survive," he says. "They had to teach me how to walk again."

It was a grueling year, and Adle could have been forgiven for thinking about nothing but his recovery. In that same period, however, he learned that a church near his home had burned down. A devout Christian, he could not ignore that tragedy. "I felt like there had to be a reason I didn't die," he says.

When Adle had recovered from two surgeries and months of rehabilitation, he got together with a friend and recruited a team of volunteers to build a new church for the congregation. "After I was able to do that," he says, "I felt like I could do anything."

And the years since have proved that self-assessment correct. In the wake of Hurricane Katrina in 2005, Adle went to Mississippi to help families rebuild; then he started going to Mexico to build houses for people in need. Now 70 and retired, he and a friend organize a yearly trip to take dental students to Haiti to offer free care.

Adle's faith in the life-changing power of giving service is backed up by a large and growing body of research that shows tangible physical and men-

In Benton Harbor, Mich., former president Jimmy Carter helped build houses for Habitat for Humanity in an effort to give families their forever homes.

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WEATHERMATE Plus
Styrofoam
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Milgard Windows
Clearly the best.
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tal health benefits to doing unto others as you would hope they would do unto you.

"People who are givers are happier and across the board tend to have better mental health," says Stephen Post, author of *Why Good Things Happen to Good People: How to Live a Longer, Happier, Healthier Life by the Simple Act of Giving*. "They also show up with better health generally and may even on average live a little longer."

Post has devoted his career to exploring this surprising idea and is a bit of an evangelist for the field of research. In fact, in a 2017 review of the science, he argued that the benefits of service are so great that care providers should actually prescribe volunteering (in increments of about two hours per week) to their patients.

WHAT ARE THE BENEFITS?

THE HEALTH BENEFITS OF giving are not easy to quantify, and the research admittedly relies at least in part on the subjective experiences of the volunteers themselves, but the sheer number of such experiences are very difficult to deny. A 2010 online survey of more than 4,500 Americans found that 96% of people who volunteered reported that it made them happier and 68% said it made them "feel physically healthier." In addition, more than three quarters of respondents reported that it increased their sense of purpose, lowered stress levels, improved overall emotional health and—as Adle experienced—improved their resilience and ability to recover in the face of "loss and disappointment."

That's a pretty persuasive pack of numbers, even if a survey is low on the scale of scientific evidence. But more rigorous research has also shown impressive results.

Several longitudinal studies (which follow a fixed group of people over an extended period of time) have found that being involved in volunteer work is associated with increased longevity, and one meta-analysis of 14 studies conducted in 2013 found that people who volunteer lowered their chance of dying over a fixed period of time, like the next year or five years, by 24%.

"People who volunteer are happier, less depressed, less anxious and less likely to die," says Sara Konrath, an associate professor at the Lilly Family School of Philanthropy in Indianapolis. "That's a robust finding over and over again."

What folks in the field are still working to discover, however, is why—and at the moment there are no firm answers.

"I don't think we have a solid handle on whether it's volunteering itself or something that comes along with it," says Konrath. There might be something about people who choose to volunteer to begin with—their personalities or their outlook on life—that drives the health benefits. They are often in higher income brackets, which is associated with better health. It might also be that, as Konrath's own research suggests, "volunteers might not just be good at taking care of others but also good at taking care of themselves."

ONE STUDY FOUND THAT VOLUNTEERS LOWER THEIR SHORT-TERM RISK OF DEATH BY 24%

In one study, she found that volunteers were more likely to use preventive health care, and, perhaps as a result, they spent 38% fewer nights in the hospital. "Volunteers were 30% more likely to get flu shots and 47% more likely to get cholesterol tests," says Konrath. "Female volunteers were more likely to get mammograms and pap smears and male volunteers more likely to receive prostate exams."

If the results don't have to do with the pre-existing behaviors of the volunteers but rather with something that flows from the act of volunteering itself, what is that something? Is it that you are more physically active, or that volunteering increases your social connections, which is associated with better health? Or is it something else entirely?

The answer is complicated, and investigators try to control for all possible variables before they can tease out which are the relevant ones. They also are working to determine what aspects of health are most benefited by volunteering.

Two 2013 studies, for example, showed that volunteering may improve heart health. In one, older

Holy Apostles Soup Kitchen in New York City serves 1,100 meals each weekday in the midst of rising food prices.

adults (ages 51 to 91) who volunteered about four hours per week were 40% less likely to have high blood pressure than those who did not volunteer. The other study—a groundbreaking paper published in *JAMA Pediatrics* in 2013—found that volunteering improved cardiovascular health in adolescents, which may put them on a path for better heart health throughout their lives.

Hannah Schreier, an assistant professor of behavioral health at Penn State University, split 106 Canadian high school sophomores into two groups. One group volunteered weekly in an elementary school and the other was kept on a waiting list for volunteering opportunities (one of the only ways to create a control group in volunteering studies).

"Three months later, those who had volunteered had significantly lower cholesterol levels and body mass index," says Schreier. They also had lower levels of interleukin 6, a chemical in the blood that is associated with higher levels of inflammation.

Perhaps most intriguing, Schreier says, is that "when we looked at empathy and altruism, we saw that [among volunteers], those who had higher levels of altruism had the lowest cholesterol levels and the ones with highest empathy had the lowest inflammatory levels." That suggests that why you help others might be important to the health benefits you get from the work.

YOUR REASONS COUNT

ALTHOUGH "NO ONE HAS NAILED DOWN A SINGLE precise mechanism by which engaging in helping behavior improves health and well-being," says Michael Poulin, an associate professor in the department of psychology at the University of Buffalo in New York, "we do know that motives seem to matter."

In a 2012 study, Konrath found that when people volunteered for reasons related to themselves—such as wanting to learn a new skill or try new things—they had a marginally significant increase in their chance of dying during a four-year period. But those who volunteered because they were thinking about others lowered their mortality risk significantly. And the more they identified with being motivated by others, the greater they decreased their risk.

Children who contribute to their families or communities are shown to experience a greater sense of well-being.

Poulin's research suggests that how you perceive other people may play a role. In a 2014 study published in the journal *Health Psychology*, he found that volunteering helped protect participants from the effects of stress, but only when they believed that "other people are good and benevolent," says Poulin. "I took that to mean you have to really care about the people you are helping." Poulin's theory makes evolutionary sense.

"There's a whole body of literature that shows that those groups who are the most cooperative are the ones that survive adversity," says James R. Doty, a neuroscientist and founder of the Center for Compassion and Altruism Research and Education at Stanford Medical School. Contrary to the popular view of survival of the fittest, says Doty, "Short-term ruthlessness can be beneficial, but long-term survival of a species requires cooperation."

Doty pinpoints two critical moments in evolution that contribute to that fact. The first was when we became high-level mammals with brains capable of things like abstract thought and complex language, which meant we had to be born sooner than other mammals (so our big heads could get down the birth canal) and had to be nurtured for as long as 20 years to survive. "That's an extraordinarily long period of time," says Doty, and it comes at great cost to parents. "Why would you do that?" asks Doty. "Because you get rewarded."

When parents respond to their children, for example, they experience a release of neurochemicals—most notably oxytocin and dopamine—which "makes you feel good and connected," says Doty. "You have what's called a 'warm glow.' "

Layered on top of that are changes that happened when we evolved from little families of cave people to hunter-gatherer tribes of 10 to 50 members. "If someone was in distress or suffering, they potentially could put the tribe or group at risk because they are not doing their job," says Doty. "So we also responded to those within our tribe or group, because this was a survival strategy for our genes. We have this capacity to respond to others in our group who are suffering."

And we are rewarded individually when we do it. "When you care and nurture another, you tap into your parasympathetic nervous system, which gives

you a sense of a sense of calmness and inclusiveness," says Doty. "This is when your physiology works best, and that is the origin of this warm glow." That, in turn, says Doty, may explain the stress- and anxiety-relieving effects of volunteering.

As Charles Darwin wrote in *The Descent of Man*, "We are impelled to relieve the sufferings of another in order that our painful feelings may be at the same time relieved."

But why do we want to help strangers who, in theory, can offer nothing to ourselves or our tribe? Studies show that when people are given intranasal oxytocin (to mimic the release they would naturally get in a caregiving moment), they feel a bond or connection to other people in their close network. However, that same hormone spritz does not make them want to connect with people outside their group.

And yet Rick Adle wanted to help people so far outside his immediate group that they lived thousands of miles away. In his case, the answer could be found in more recent research that suggests that you can overcome the disconnections of tribal distinctions just by "looking at others and thinking of the things you have in common," says Doty. Consider the desire for peace in a community or the need for basic things such as shelter and food—universal values. When subjects tap into "this idea of common humanity, it breaks down this tribal separation and you have more of a response from oxytocin," says Doty.

VOLUNTEERING IS FOR EVERYONE

"IF YOU CAN RAISE A CARING CHILD, THAT CHILD is likelier to be happier and probably live a longer and healthier life," recommends Post, whose work now centers on studying and advocating for service as a way to prevent and recover from addiction—particularly among adolescents.

Those contributions can start in the home, says Andrew Fuligni, a professor in the Jane and Terry Semel Institute of Neuroscience and Human Behavior at UCLA. Fuligni has studied children ages 14 to 22 who contribute to their family in the form of chores, providing translating help to family members (in the case of immigrant families) and even giving financial support. "When kids provide assistance to the family, it gives them a sense of role fulfillment," says Fuligni, "that they are a contributing member of the family, and they do feel a greater sense of well-being."

"It's important for us to provide adolescents with opportunities to contribute, because the research suggests there are psychological and health benefits," says Fuligni. "It helps them figure out how they fit into society."

But there are limits: Fuligni's research has found higher levels of inflammation in those who are burdened by too many duties around the house, and that same too-much-of-a-good-thing idea follows us out of the home too. Volunteering much more than two hours per week can have diminishing returns, wrote Post in his 2017 review article. "Overdose" is possible when "helping becomes stressful and potentially harmful," he adds.

> THERE ARE LIMITS: TOO MUCH CAREGIVING MAY LEAD TO COMPASSION FATIGUE

Poulin has found that when individuals are taking care of a sick spouse, the positive emotions they gain from caregiving are dependent upon how they see the relationship. "If you believe the relationship to be interdependent and not lopsided, providing help tends to increase the incidence of positive emotions." If the relationship feels one-sided to the participants, on the other hand, Poulin says it increases negative emotions in caregivers.

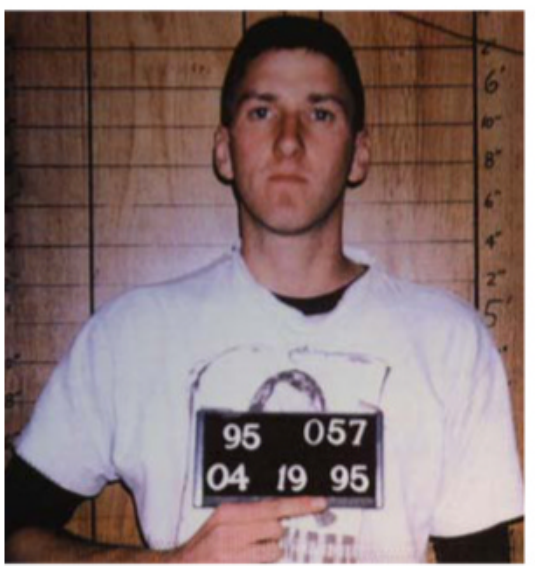
And those whose professional work involves taking care of others (such as health care and social workers, pastors, and teachers) are at risk of experiencing compassion fatigue. For them, writes Post, "the need is not for volunteering so much as for balance and care of self."

For everyone else, Post's prescription varies. The research, he says, supports as much as four hours per week for older retired adults and as little as one hour for adolescents. Regardless of dose, his prognosis is clear: "When you get your mind off the problems of the self and just ask, 'What can I do to contribute to the lives of others?,' you're in a very healthy space." □

CAN THE TRULY BAD TURN GOOD?

Some crimes are so huge, some people so savage, that redemption seems entirely impossible. But is it? Science has long wondered whether even the worst of us can learn decency and empathy. There is no clear answer—but there is reason for hope

BY RYAN HATCH



TIMOTHY MCVEIGH
Booked on the very day of his crime, the Oklahoma City bomber exhibited no apparent remorse for the devastation he'd wrought and the 168 lives he'd claimed.

ON THE MORNING OF APRIL 19, 1995, A 26-YEAR-old Army veteran named Timothy James McVeigh, angry at the United States government and disillusioned by what had become a dead-end life, set off a truck bomb in front of a federal office building in Oklahoma City, killing 168 people, including 19 children, while wounding hundreds more. The attack remains the single deadliest act of domestic terror in modern U.S. history. McVeigh was executed six years later for his crimes.

A month before his death and just a decade removed from an honorable discharge from the military after serving in the Gulf War, McVeigh, during an interview on *60 Minutes*, flipped the questioning and asked a reporter, somewhat rhetorically: "Well, am I . . . am I pure evil? Am I the face of terror sitting here in front of you?"

McVeigh is rightly remembered as one of this country's worst monsters, and mostly it's for the crimes he committed that day. But it's no small point that another part of the reason is that until his last breath on an executioner's table in Terre Haute, Ind., McVeigh refused to change or seek any sort of redemption. His repeated insistence that what he did was right—a "retaliatory strike" against the government, as he called it; the children's deaths "collateral damage"—was, to some, his final act of horror, shrugging at the outrageous pain he had chosen to inflict. When asked in the same interview if there were anything in his life he wished he could go back and do differently, he said, "No one [moment] that stands out."

This raises the question: Was McVeigh even capable of remorse? Was he—and are other people who are similarly savage, similarly unremorseful—simply irredeemable?

"There are cases in which there are real pathologies . . . where those people are as close to true evil as people can imagine, and that's because what's broken in them is the ability to connect with other human beings," says David Pizarro, an associate professor of psychology at Cornell University. "Can they change? For those people, the evidence is against them."

Part of that evidence has been put into focus in recent years by professor and researcher Kent Kiehl at the University of New Mexico, who has designed studies that test prisoners who are classified as psychopaths. When his subjects are shown phrases like "listening to others" or "sex with your mother," their brains signal little discernible effect, unlike those not suffering from the disorder who can quickly sort such ideas into one category or another. Additionally, Kiehl has reported that psychopaths' impulsivity, or lack of behavioral inhibitions, differed greatly from that of non-psychopaths.

In a 2011 study, Kiehl showed participants the letters "X" and "K" on a screen—two letters that at a glance can look the same. They were instructed to press a button when they saw the "X" and to refrain when they saw the "K," and they were told that they would be scored on both speed and accuracy. Psychopaths did not perform well, often unable to take the fractional instant to confirm which letter they were seeing before hitting the button.

"This inability may explain the psychopath's poor behavioral controls, nomadicity and generally impulsive lifestyle," the study said. The findings match up with McVeigh's callous view of the bombing. They may also explain serial killers like Ted Bundy, who was not only indifferent to the suffering of his victims but apparently unable to resist the impulse to continue, having likely murdered at least 30 people.

"That suggests on a fundamental level that they can't turn good," says Amherst psychology professor Catherine Sanderson, author of the upcoming book *The Silence of the Good People*. "Their brain can't process [their crimes], and natural impediments [to that processing] just seem to operate."

> IN PRISONERS DIAGNOSED AS PSYCHOPATHS, BRAIN FIBERS LACKED "STRUCTURAL INTEGRITY"

These impediments can be caused by a range of factors. Another study from 2011, published in the *Journal of Neuroscience,* detailed Kiehl's examination of prisoners in Wisconsin and demonstrated that those suffering from psychopathy showed abnormalities in the ventromedial prefrontal cortex and amygdala, areas of the brain controlling empathy, guilt, contrition and fear. Kiehl and fellow researchers conducted two imaging tests. The first looked at the brain's physical makeup; the second, its activity. In the brains of prisoners who suffer from psychopathy, white-matter fibers linking the two sides had "reduced structural integrity"—in other words, crucial material connections didn't exist. The second test indicated that the nerves between the prefrontal cortex and amygdala, along with the parietal lobe (an area of the brain handling sensory information), weren't communicating as expected. Together, the study reported, these patterns were "a characteristic neurobiological feature of psychopathy."

The cause of such bad brain wiring is not entirely clear. Though we're born with a certain set of genes that help shape our character, those that get expressed can depend on life experiences. McVeigh,

for example, could have been suffering from post-traumatic stress disorder from his time overseas in the Army, coupled with a joyless childhood (he was said to have been the victim of bullying) and his stated anger and hatred at the government for its involvement in the 1995 Waco siege, in which 76 were killed in an FBI raid, and Ruby Ridge, a similar incident from 1992 that left three dead. In Bundy's case, to avoid the social stigma of living without a father, he was led to believe for many years that his grandparents were his actual parents, while his mother was his sister. It's said, too, that Bundy's grandfather (whom he thought was his dad) was an abusive, racist alcoholic, the first male figure Bundy ever directly learned from.

Clearly, untold numbers of people experience similar or even far worse childhoods and do not grow up to bomb a building or serially slaughter dozens of people. But as part of a more complicated cocktail of variables—including a genetic or neurophysiological disposition—a painful past can help set someone off down a monstrous course of action that can be impossible to change.

So, to answer McVeigh's question, the answer may be a solid yes—he was, by any usable definition, evil, incapable of reform likely due to a mental state that wouldn't permit it. Something similar was true of Bundy. So that's it then: some people are forever fixed on one dark path no matter what. Or maybe not.

EVEN THE WORST ARE NOT BIOLOGICALLY BARRED FROM DISCOVERING A MORAL COMPASS

FROM 1975 UNTIL 1979, the Khmer Rouge in Cambodia slaughtered an estimated 1.7 million of its own people, nearly a quarter of the country's population. In prisons and torture camps across the lush Southeast Asian kingdom, babies were beaten to death against trees and thrown into mud pits. Men and women were starved and enslaved, family members murdered in front of one another while loud music played at night to drown out their screams so as not to tip off the neighbors. Mass graves filled the land.

There were people orchestrating this—especially the Khmer's primary leader, Pol Pot. After his regime fell, he spent the years until his 1998 death in hiding, avoiding accountability or punishment for the horror he'd authored. And he wasn't alone in ducking justice: everyone responsible for the bloodbath, it seemed, got away with it and carried a clear conscience.

But finally, in 2009, after living for years in anonymity, Kaing Guek Eav, one of Khmer's leaders, became the first to apologize publicly and take responsibility for what he admitted were atrocities committed against his countrymen. A converted Christian who, it's reported, has repented, Eav (who was later sentenced to prison for life) apologized to the people of his nation, adding that "my current plea is that I would like you to please leave an open window for me to seek forgiveness."

Four years later, two more Khmer figures apologized for their roles in the genocide, one of the men saying, "I must take responsibility for the damage, the danger to my nation." Do their apologies and guilt negate nearly 2 million murders? Not a bit. But if nothing else, they are evidence that evildoers, given the right makeup and circumstance, may feel deep, sincere remorse and, it appears, begin to change even after perpetrating some of the worst possible acts.

You see similar contrition elsewhere if you look. By the end of the 2006 National Football League season, Atlanta Falcons quarterback Michael Vick was considered the greatest football player on the planet—and had a $130 million contract to prove it. The following season, however, Vick was suspended after it came to light he was running an illegal dog-fighting ring—and the dogs that fought poorly suffered horribly. A federal indictment charged that Vick and his associates "executed approximately eight dogs . . . by various methods, including hanging, drowning, and slamming at least one dog's body to the ground."

They were crimes that found few sympathizers, and Vick served 18 months in prison for them. For many people, he would always be a pariah, but forgiven or not, he owned up to what he had done. "I'm totally responsible, and those things just didn't have to happen," he said in 2008. "Dog-fighting is a ter-

rible thing." Ultimately, he returned to football and played seven more years with three different teams. A dog owner once more, he has become an animal-rights activist, partnering with the Humane Society of the United States and speaking regularly to kids about the evils of dog-fighting.

In both the Khmer Rogue and Vick cases (along with many others), much of the public apologizing could certainly be driven by other motives. Eav likely knew he was going to prison for a long time regardless, but by apologizing he may have wanted his name cleared to soften his legacy or protect his family even if he didn't feel the deep remorse he suggested. Vick, still only 27 at the time of his indictment, had much at stake: big-time money, earlier freedom (his release from prison came five months before the end of his original 23-month sentence) and a desire to do the thing he did best, which was playing football. It would be naive to believe his contrition was entirely free of those considerations. But two things can still be true at once.

Millions of redemption stories exist—gangsters, drug dealers and financial hucksters all over the world have found peace and a sincerely better life in and out of prison. Indeed, it seems that not everyone is biologically barred from rediscovering a moral compass or better self.

BUT HOW? HOW can such drastic change come about? Another prison study, published in 2013 and conducted by neuroscientist Christian Keysers of the Netherlands Institute for Neuroscience, provides a clue. Keysers worked with prisoners who had been diagnosed to be highly psychopathic and who agreed to submit to functional magnetic resonance imaging, studying how their brains reacted to seeing other people experience pleasure or pain.

In this case, the pleasure or pain was pretty basic. The inmates looked at pictures of human hands: in some, the hands were being gently stroked by other hands; in others, they were being slapped or the fingers were being twisted. In both cases, the psychopaths' brains remained relatively non-responsive—showing no detectable empathy. That's bad news, but there was an easy fix: as soon as the prisoners were instructed to try to imagine what the people in the pictures might be feeling, their brains woke up and reacted like a non-psychopath's. That doesn't mean they were cured of their psychopathy; it does mean that they weren't beyond human feeling.

If psychopaths, the ostensible worst among us, can be reached so simply, surely others can be too. "There are all kinds of ways," Pizarro says. "But it starts with looking inside at one's self and saying, 'Maybe I'm not being a good person'. That step is so hard to take for most humans."

Hard enough, in fact, that it requires sort of a pre-step: the ability of malefactors to stand outside of themselves and try to fathom how they're perceived by the rest of humanity. That's not a natural state for us. We experience the world from within our own head, heart, mind—it's a place we look out at first, inhabit second. But when we can pause and think critically about the effect we're having on that world and, most importantly, on the people who live in it, change can start to happen. "Even just worrying that you might be part of the problem" can be a start, says Pizarro, adding that a significant step can be to stop blaming others for your own actions.

Once people have adopted that perspective, one of two things often happens, especially after a serious incident. "[You get] terrible remorse, says Sanderson. "These people literally can't live with themselves." Other people resist—blaming their victims for provoking them, or the judge for sentencing them unfairly. They step out into the world, decide that that perspective demands too much from them and crawl back inside their own heads. For them, there is no recovery.

Many people, like McVeigh, end up that way. They act on evil—and later embrace the evil. For them, a critical piece seems to be missing—perhaps those white-matter fibers in the brain are to blame; perhaps an irreversible childhood trauma; perhaps the civilizing process never began in the first place.

Other people, however, do change. They can never entirely undo the damage they've done; if they've killed, their victims cannot be brought back. But with enough insight, honesty and genuine repentance, the moral ledger can be brought back to something a little closer to balance.

Before he became president, in 1848 as a congressman from Illinois, Abraham Lincoln said that "there are few things wholly evil, or wholly good . . . our best judgment of the preponderance between them is continually demanded." This sentiment, from the man who rescued us from the social evils of slavery, and eventually succumbed to the personal evil of assassination, remains as true today as it was 171 years ago. It's an eternal struggle. ◻

Five years after the Oklahoma City attack, a memorial was opened. The 9:01 represents the minute before the lethal blast.

‘The Banality of Evil’

An excerpt from journalist **Hannah Arendt’s** landmark book, *Eichmann in Jerusalem*, about the 1961 trial of Adolf Eichmann, one of the architects of the Holocaust, captures the evil not of the madman or the tyrant, but of the anonymous clerk, who learns to silence—and then suffocate—his conscience

Arendt covered the trial, and in these excerpts, she discusses first the 1942 Wannsee Conference, at which Nazi leaders planned the “Final Solution.” It was the first time Eichmann had mingled with so many “high personages,” but their rank was not all that struck him. (Arendt drew quotes from Eichmann from his memoir, the trial transcript and other sources.)

THERE WAS ANOTHER REASON that made the day of this conference unforgettable for Eichmann. Although he had been doing his best right along to help with the Final Solution, he had still harbored some doubts about “such a bloody solution through violence,” and these doubts had now been dispelled. “Here now, during this conference, the most prominent people had spoken, the Popes of the Third Reich.” Now he could see with his own eyes and hear with his own ears that not only Hitler . . . but the elite of the good old Civil Service were vying . . . for the honor of taking the lead in these “bloody” matters.

“At that moment, I sensed a kind of Pontius Pilate feeling, for I felt free of all guilt.” Who was he to judge? Who was he “to have [his] own thoughts in this matter”? Well, he was neither the first nor the last to be ruined by modesty.

What followed, as Eichmann recalled it, went more or less smoothly and soon became routine. He quickly became an expert in “forced evacuation.” In country after country, the Jews had to register, were forced to wear the yellow badge for easy identification, were assembled and deported, the various shipments being directed to one or another of the extermination centers in the East. . . . [W]hen a trainload of Jews arrived at a center, the strong among them were selected for work, often operating the extermination machinery, all others were immediately killed. As Eichmann told it, the most potent factor in the soothing of his own conscience was the simple fact that he could see no one, no one at all, who actually was against the Final Solution.

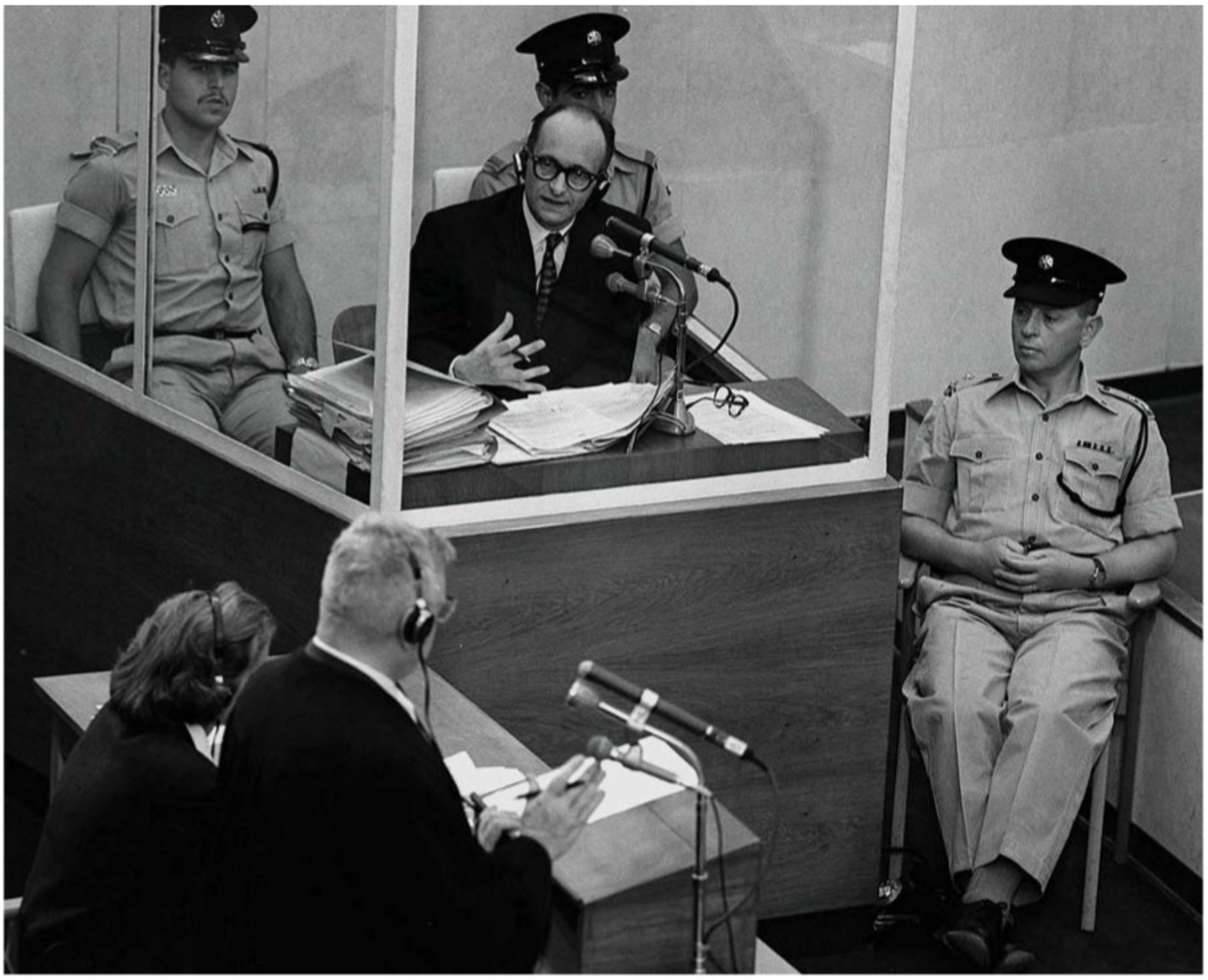
EICHMANN, IN CONTRAST TO other elements in the Nazi movement, had always been overawed by “good society,” and the politeness he often showed to German-speaking Jewish functionaries was to a large extent the result of his recognition that he was dealing with people who were socially his superiors. He was not at all, as one witness called him, a “Landsknecht-natur,” a mercenary. . . . What be fervently believed in up to the end was success, the chief standard of “good society” as be knew it. Typical was his last word on the subject of Hitler, [who], he said, “may have been wrong all down the line, but one thing is beyond dispute: the man was able to work his way up from lance corporal in the German Army to Führer of a people of almost eighty million. His success alone proved to me that I should subordinate myself to this man.”

His conscience was indeed set at rest when he saw the zeal and eagerness with which “good society” everywhere reacted as he did. He did not need to “close his ears to the voice of conscience,” as the judgment has it, not because he had none, but because his conscience spoke with a “respectable voice.”

Arendt writes about what she calls “the inner emigrant,” a term for Nazis who inwardly opposed the regime but justified serving it:

WHILE EICHMANN MAY NEVER have encountered an “inner emigrant,” he must have been well acquainted with many of those numerous civil servants who today assert that they stayed in their jobs for no other reason than to “mitigate” matters and to prevent “real Nazis” from taking over their posts.

So Eichmann’s opportunities for feeling like Pontius Pilate were many, and as the months and the years went by, he lost the need to feel anything at all. This was the way things



Under the Nazi regime of World War II, Adolf Eichmann was charged with the mass murder of 6 million Jews.

were, this was the new law of the land, based on the Führer's order; whatever he did he did, as far as he could see, as a law-abiding citizen. He did his duty, as he told the police and the court over and over again; he not only obeyed orders, he also obeyed the law. Eichmann had a muddled inkling that this could be an important distinction, but neither the defense nor the judges ever took him up on it. The well-worn coins of "superior orders" versus "acts of state" were handed back and forth; they had governed the whole discussion of these matters during the Nuremberg Trials [in 1945 and 1946, of 21 other Nazi leaders], for no other reason than that they gave the illusion that the altogether unprecedented could be judged according to precedents and the standards that went with them.

Whatever [Immanuel] Kant's role in . . . "the little man's" mentality in Germany may have been, there is not the slightest doubt that in one respect Eichmann did indeed follow Kant's precepts: a law was a law. . . . In Jerusalem, he admitted only two such exceptions during the time when "eighty million Germans" had each had "his decent Jew": he had helped a half-Jewish cousin, and a Jewish couple in Vienna for whom his uncle had intervened.

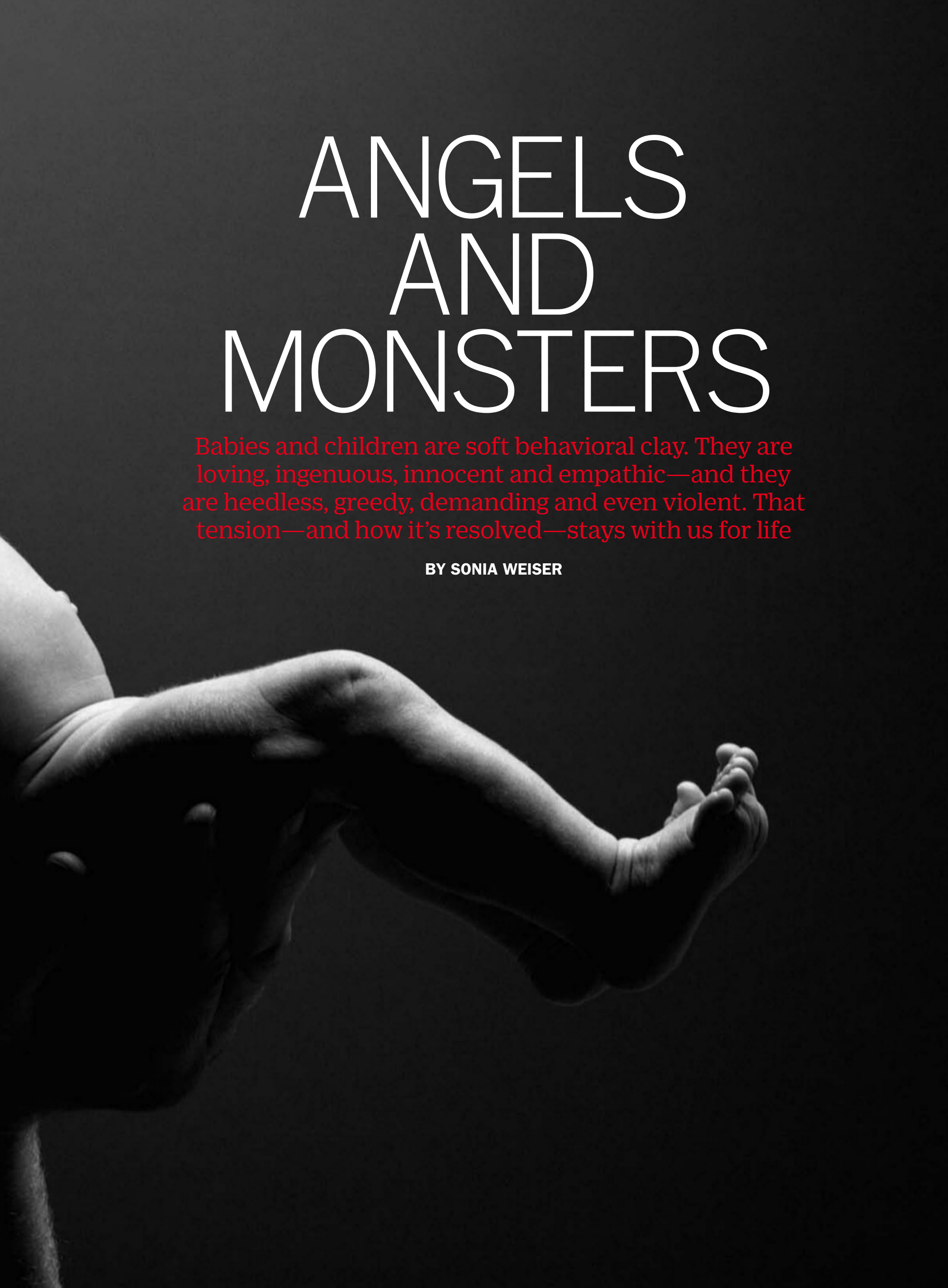
This inconsistency still made him feel somewhat uncomfortable, and when he was questioned about it during cross-examination, he became openly apologetic: he had "confessed his sins" to his superiors. This uncompromising attitude toward the performance of his murderous duties damned him in the eyes of the judges more than anything else, which was comprehensible, but in his own eyes it was precisely what justified him, as it had once silenced whatever conscience he might have had left. □

From Eichmann in Jerusalem *by Hannah Arendt, published by* Penguin Classics, *an imprint of* Penguin Publishing Group, *a division of* Penguin Random House, LLC. *Copyright © 1963, 1964 by Hannah Arendt.*

ANGELS AND MONSTERS

Babies and children are soft behavioral clay. They are loving, ingenuous, innocent and empathic—and they are heedless, greedy, demanding and even violent. That tension—and how it's resolved—stays with us for life

BY SONIA WEISER



FRESH FROM THE WOMB AND UNTAINTED BY THE cruel realities of the world, babies embody innocence. Too young to fathom a difference between right and wrong, good and evil, they are granted cherubic status until proven otherwise.

It's a sweet take—but an incomplete one. Babies are in fact a swirl of conflicting impulses: selfish and giving, narcissistic and sympathetic, aggressive and gentle. In other words, they're just like adults—if the 1.0 version, before life downloads all the upgrades.

As with adults, almost everything in a baby's prosocial or antisocial behavior begins with empathy, "our natural ability for sharing emotions, coupled with a motivation to care for their well-being," as Jean Decety, a professor of psychology and psychiatry at the University of Chicago, put it via email. Director of the Child NeuroSuite, Decety, along with his colleagues, studies the development not just of empathy but also of morality, social decision-making and more among toddlers and children, relying on a combination of interactive tasks and games as well as eye-tracking and EEG readings of brain activity.

Among Decety's findings is that children even as young as age 1 can recognize distress in another person and attempt to offer comfort, while those between 14 and 18 months exhibit unrewarded and unprompted helping behaviors. That said, kids—and adults—don't show the same level of empathy toward everyone. Family members and, to a lesser extent, other people with whom children are familiar will always get more attention and aid than people we know less well. That sometimes puts empathy in conflict with morality: a close playmate is no less worthy of concern than a less close one, and yet from babyhood on, we look out for our tribe first.

"Empathy can bias our judgments, and influence decision-making in ways that directly conflict with moral principles such as fairness," writes Decety.

His own studies back this up. In a 2014 paper in *Trends in Cognitive Science*, Decety found that the neural network involved in processing empathy is significantly strengthened when people see their loved ones in pain, and less so in response to strangers' distress.

Says Nancy Eisenberg, a Regents' Professor in the department of psychology at Arizona State University, "There's a difference between empathy for people like yourself—your family, your friends, people who look like you—and empathy for people who are different somehow. That's harder."

And yet, over time, the bias comes back into balance. We're not born with the sophisticated empathy we develop as we grow older—"affective empathy"—or the true ability to experience another's pain or joy or sorrow. Rather, we experience what's known as empathic arousal. Babies "catch" the emotions of people around them—rather than sitting peacefully while the baby in a nearby crib begins to cry, they'll join the chorus of wailing and howling.

"The problem is, of course, if you start crying and I start crying, it's not very helpful," says Carolien Rieffe, a professor of social and emotional development of children with auditory or communication impairments at Leiden University's Institute of Psychology. As months go by, children begin to understand the need to self-regulate in order to attend to the needs of another. "I need to understand that it's not me, it's you," continues Rieffe.

At the age of 4, children may display yet another form of empathy, known as "cognitive empathy," the ability to understand on a purely intellectual level another person's feelings by identifying unique motives, desires or perspectives. Psychopaths with a keen cognitive empathy can harness their ability to read others in order to manipulate them; without affective empathy, they know they are causing pain but feel nothing in response.

Unlike affective empathy, cognitive empathy is learned primarily through observation and social interactions. Rieffe has found that children with autism spectrum disorder as well as those who are prelingually deaf or have language-development problems may lack the same level of cognitive empathy as their typically developing counterparts, not because they cannot feel for others but because they have less exposure to the social experiences needed to adopt and exercise these skills.

Morality develops on another, eventually intersecting track. In a study conducted by neuroscientists including Decety at the Child NeuroSuite, 73 infants and toddlers were shown animations of characters engaging in prosocial behaviors such as sharing as well as antisocial behaviors such as hitting. As the kids watched, the scientists observed their eye movements and EEG readings. While all the children exhibited larger brain waves while watching the "good" scenes and focused more attention on the morally sound characters, the extent of the neural differentiations varied among participants.

After the films, the children were offered a toy—

Until the empathy software boots up, kids can inflict suffering on others and not feel a thing themselves.

they could pick one identical to the prosocial character or one that looked like the antisocial character; the toddlers with the stronger neural differentiations were more likely to choose the "good" toy.

Though infants seem to favor prosocial behaviors and recognize situations that require an altruistic response, they seem unable to act out this understanding until they're 3½ to 4½ years old. "While infants expect adults to comfort a baby in distress, they themselves do not show any affective concern to a crying infant or to an adult simulating pain after slamming a finger in a door," writes Decety.

What's more, children under 1 year old even appear to understand that sometimes people deserve a little suffering. In a study conducted at the Infant Cognition Center at Yale University, a team of researchers showed 8-month-olds a series of scenes enacted by puppets and then asked the babies to choose one puppet to play with. In the first scene, the puppet who was previously established as a helper was treated nicely by one puppet and badly by another. These children opted to play with the benevolent puppet. In the next scene, the cruel puppet was rewarded by one puppet and punished by another. Here, the babies chose the punisher; somehow they recognized that the character who had previously displayed antisocial behavior warranted negative treatment. Still, infants are likely to dole out the punches to both good and evil—their apparent attraction to justice is limited to situations in which they have no role.

Of course, morality is also subjective—there's no universal definition for basic terms like "mean" and "nice" or "good" and "evil," nor is there a single in-group and out-group. So could explicitly teaching empathy from a young age be the solution to society's biggest prejudices? According to Eisenberg, the answer lies in reconsidering the qualifications for our in-groups and broadening them to be more inclusive. "If you have people of other races in preschool, they're not going to seem so different," she says.

Although we may never reach a point at which learning to show empathy to all overpowers our innate preferences, with enough time we may use what we know about childhood development to make the world a gentler place. The key is to teach the kids those lessons as well as ourselves. □

HARRY POTTER

STAR WARS

Good and Evil Parallels in *Star Wars* and *Harry Potter*

BY COURTNEY MIFSUD

THE RULING PRINCIPLES

The mythical energy that permeates the *Star Wars* universe—the Force—can be used virtuously or villainously. Jedi wield the force to create balance and ensure peace. The Sith exploit the Force's stronger side, the Dark Side, for power and plunder. In Potterworld, witches and wizards attend the Hogwarts School of Witchcraft and Wizardry, where they learn to tame their magical powers and use them constructively. They also study the "defense against the dark arts." Those arts are practiced with relish by the series' most notable villains, and if you have trouble picking out who they are, author J.K. Rowling provides you some signposts. Names like Lucius Malfoy, Bellatrix Lestrange and Dolores Umbridge do not signal good intentions.

THE APOTHEOSIS OF GOOD AND EVIL

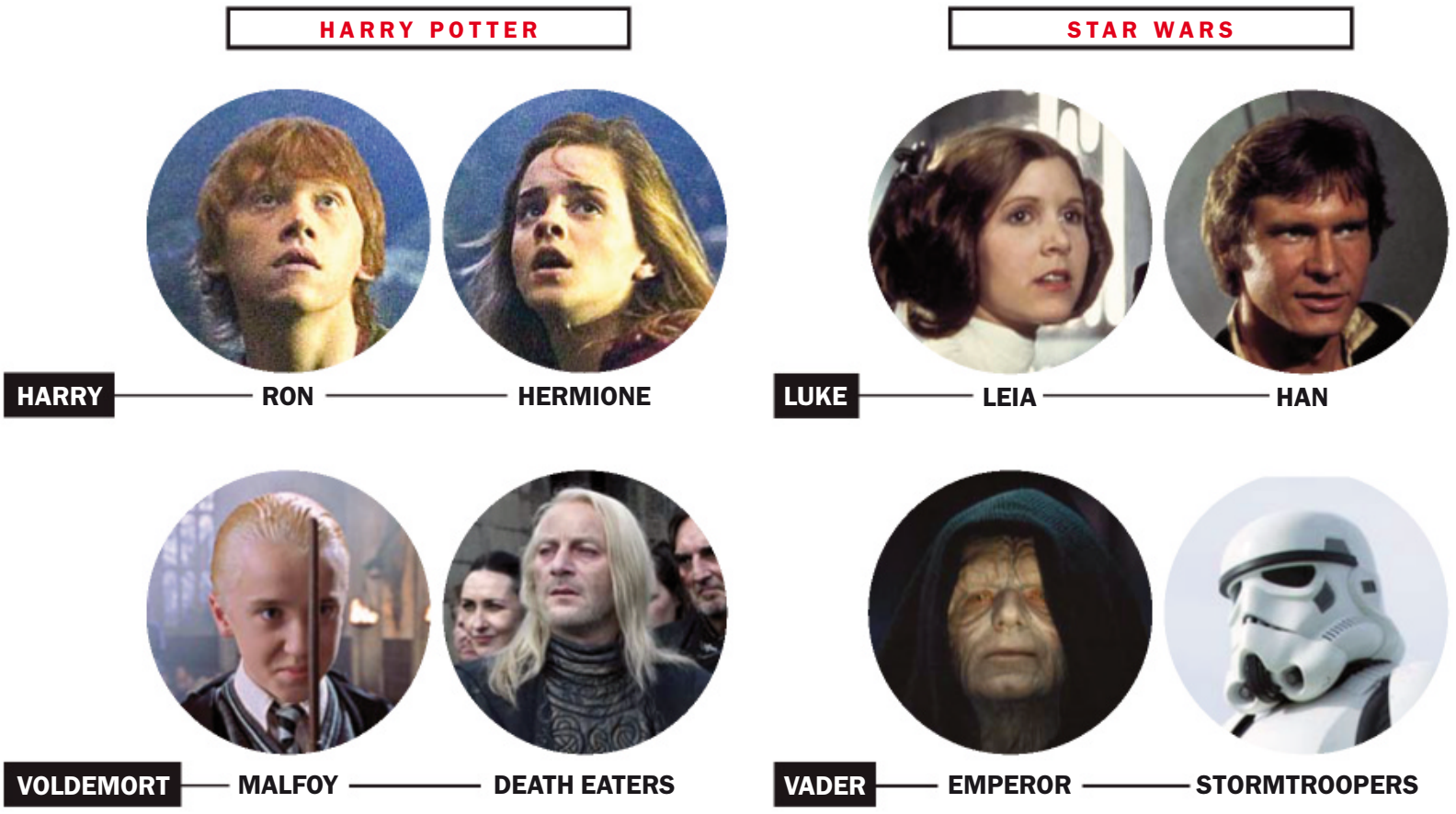
Everything about *Star Wars*'s Darth Vader screams evil, from the all-black ensemble to his taste for telekinetically choking subordinates, to that nasty business of overseeing development of a weapon that can blow up planets. But his son, Luke Skywalker, embraces all that is good. After *(spoiler alert!)* realizing that he's Vader's son, Luke is able to find the goodness not only in the universe but in his father as well. The Darth Vader of Potterworld is, of course, Lord Voldemort, who is motivated by vanity and power-lust and thinks nothing of racially cleansing all muggles. Plus he doesn't have a nose. Harry Potter, who never knew he was a wizard until Hogwarts came calling, dedicates his life to virtue and loyalty—and ultimately defeats the Dark Lord.

THE STRADDLERS

The creators of Harry Potter and *Star Wars* include characters in shades of moral gray—a more accurate depiction of human nature than just good and evil. Severus Snape and Narcissa Malfoy commit despicable acts in the Potter tales, but many are in the name of love, and Snape makes the most heroic sacrifice of all. The bad-boy smugglers in *Star Wars* exhibit both darkness and light. Han, ever roguish, kills bounty hunter Greedo in cold blood (yes, Han shot first) before embarking on his mission with Luke. Lando Calrissian, Han's friend, betrays the gang to Vader, but he comes through in the end.

MOST HORRIFIC ACTS

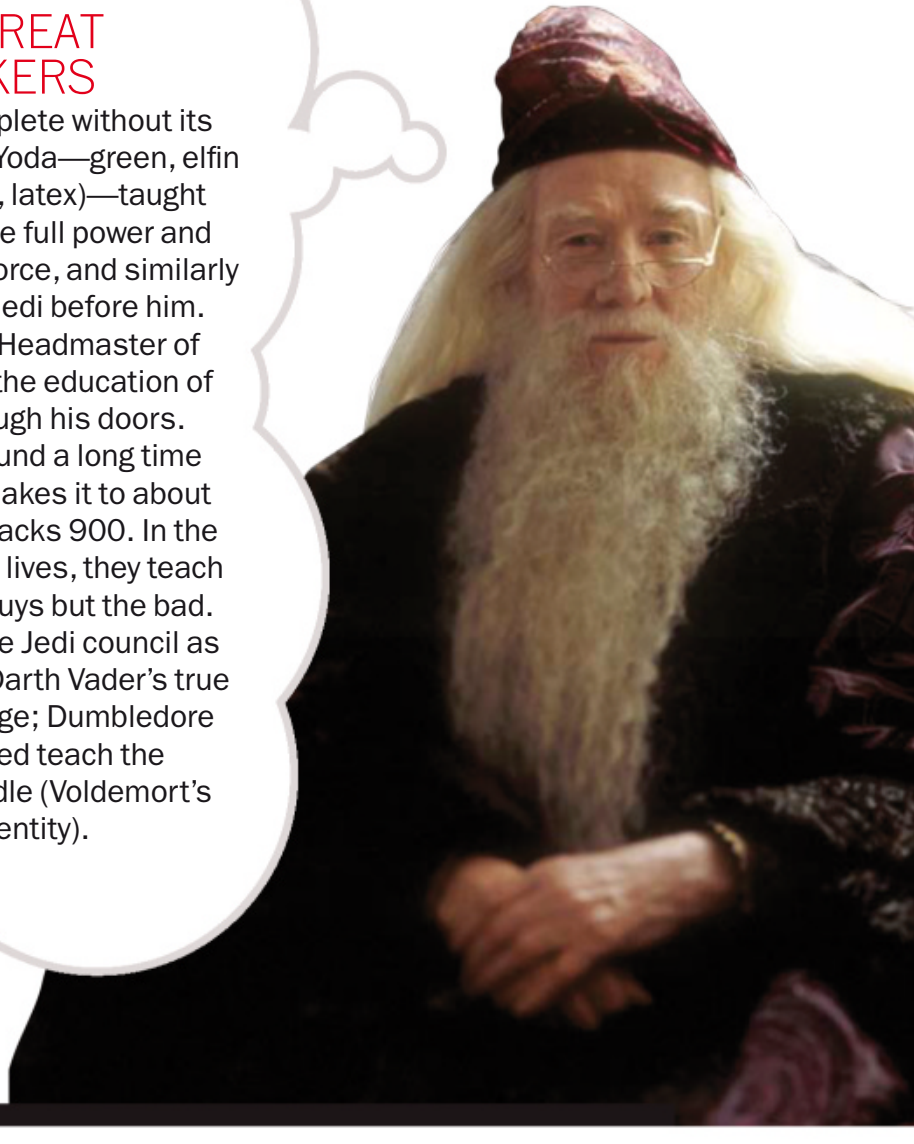
Anakin Skywalker, Vader's true identity before he fell to the Dark Side, had orders to wipe out any remaining Jedi, when he comes upon a room in the Jedi Temple filled with scared young Jedi-in-training. Although the scene cuts, it is clear that Anakin followed through with killing all of the helpless children and was truly lost. Vader wasn't the only bad guy who took no pity on children. When Harry was just a baby in diapers, Voldemort tried to zap him with a deathly curse after having killed both of Potter's parents.



THE SIDEKICKS In both universes, the good guys operate in heroic trios. Harry has his schoolmates Hermione Granger and Ron Weasley; Luke has Han Solo and Princess Leia, who *(spoiler alert!)* turns out to be his sister. The bad guys, meantime, operate in master-and-apprentice teams. Vader is learning from the even more villainous Emperor Palpatine and hopes to turn Luke so that he will one day step in as his own apprentice. Voldemort has a whole group of followers: a group of villainous wizards and witches, called Death Eaters, committed, as he is, to ethnically cleansing the wizarding community.

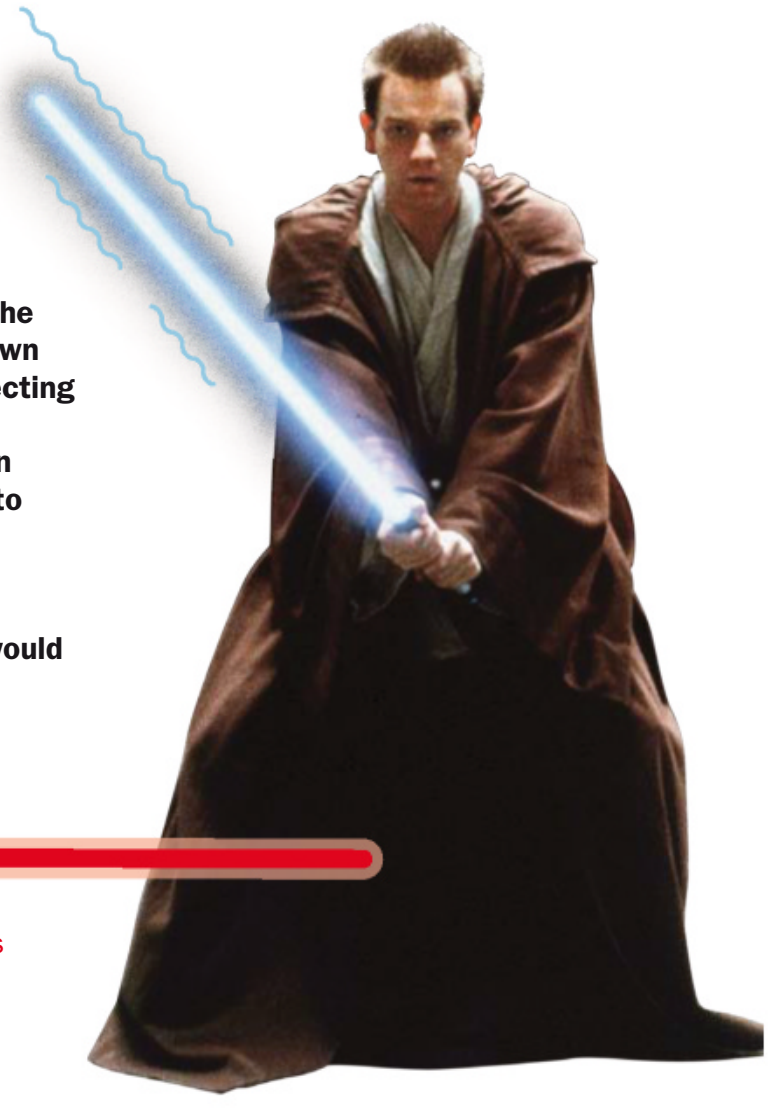
THE GREAT THINKERS

No culture is complete without its philosopher kings. Yoda—green, elfin (and truth be told, latex)—taught Luke Skywalker the full power and dimensions of the force, and similarly mentored many Jedi before him. Dumbledore, the Headmaster of Hogwarts, shaped the education of all who came through his doors. They both hung around a long time too. Dumbledore makes it to about 150 years; Yoda cracks 900. In the course of their long lives, they teach not just the good guys but the bad. Master Yoda ran the Jedi council as Anakin Skywalker (Darth Vader's true identity) came of age; Dumbledore found and helped teach the orphaned Tom Riddle (Voldemort's human identity).



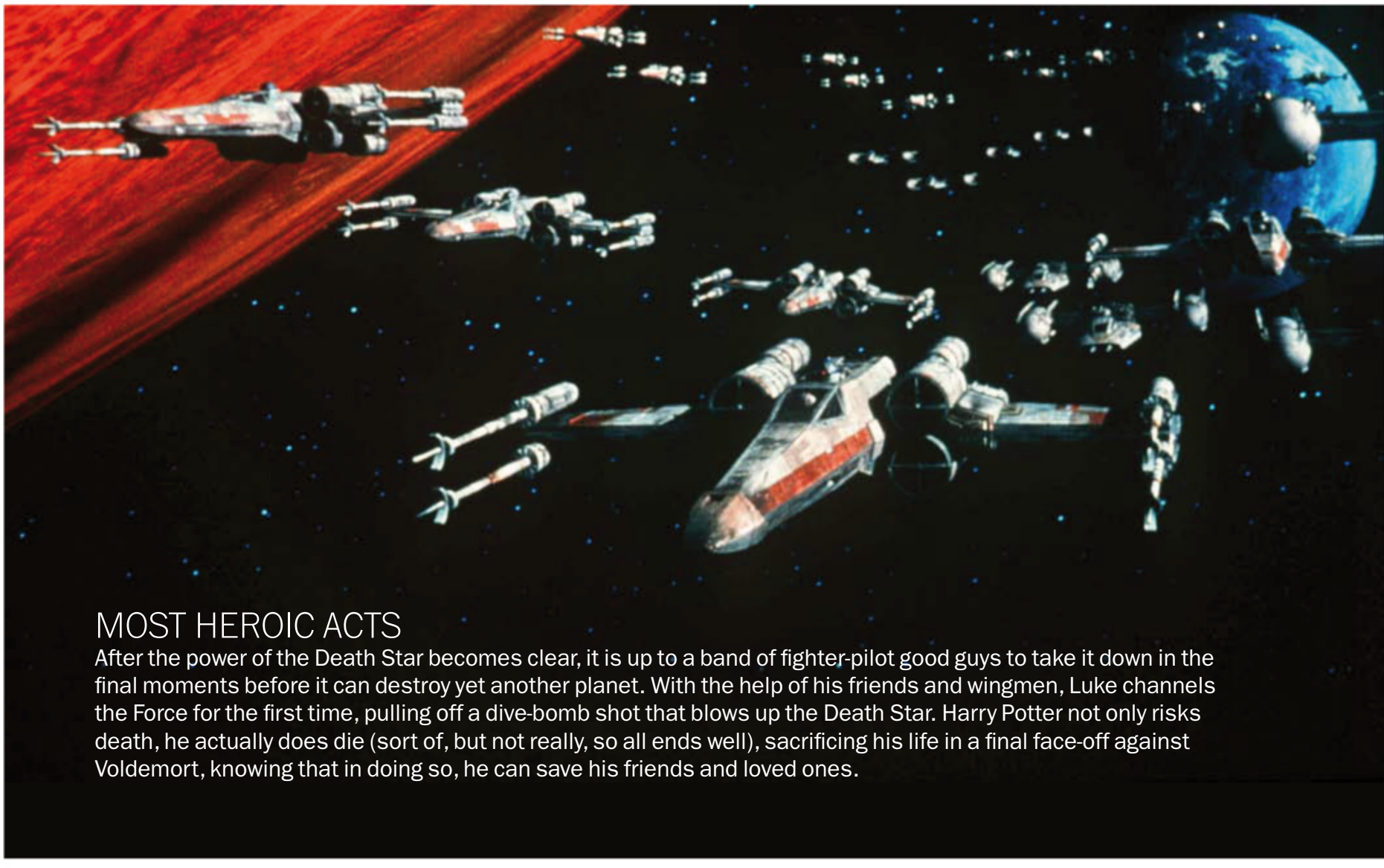
WEAPON OF CHOICE

For *Star Wars* it's the lightsaber, which warriors on both the Dark and Light sides of the Force can use. The elegant sort-of sword can do almost anything in the right hands, from taking down armored machinery to reflecting incoming blaster bullets. Wizards and witches rely on their semi-sentient wands to channel their magic. Some spells can be done without them, but in most cases, a wandless witch or wizard would be pretty much out of luck.



Lightsaber
Used by Jedi and Sith warriors

Wand
Used by wizards and witches



MOST HEROIC ACTS

After the power of the Death Star becomes clear, it is up to a band of fighter-pilot good guys to take it down in the final moments before it can destroy yet another planet. With the help of his friends and wingmen, Luke channels the Force for the first time, pulling off a dive-bomb shot that blows up the Death Star. Harry Potter not only risks death, he actually does die (sort of, but not really, so all ends well), sacrificing his life in a final face-off against Voldemort, knowing that in doing so, he can save his friends and loved ones.

A HOME BASE

Hogwarts School of Wizardry is the HQ for the heroes of Potter, where the students make their final stand. Voldemort doesn't tend to stay in one place, but he does return to the cave by the sea where he had been taken as a child, to hide one of his Horcruxes. The Rebel Alliance finds itself constantly on the move from the Empire forces. The Empire's leaders tend to take to the stars, waging their wars from easily blown-up space stations or imposing Star Destroyers.

THE LITTLE ONES RISE

The house-elves in Hogwarts take care of the entire school. That means cooking in the kitchens and keeping up the dorms and the rest of the castle. But in the final conflict of the war, the Battle of Hogwarts, they rise up and fight with cleaves and knives to repel the Death Eaters.

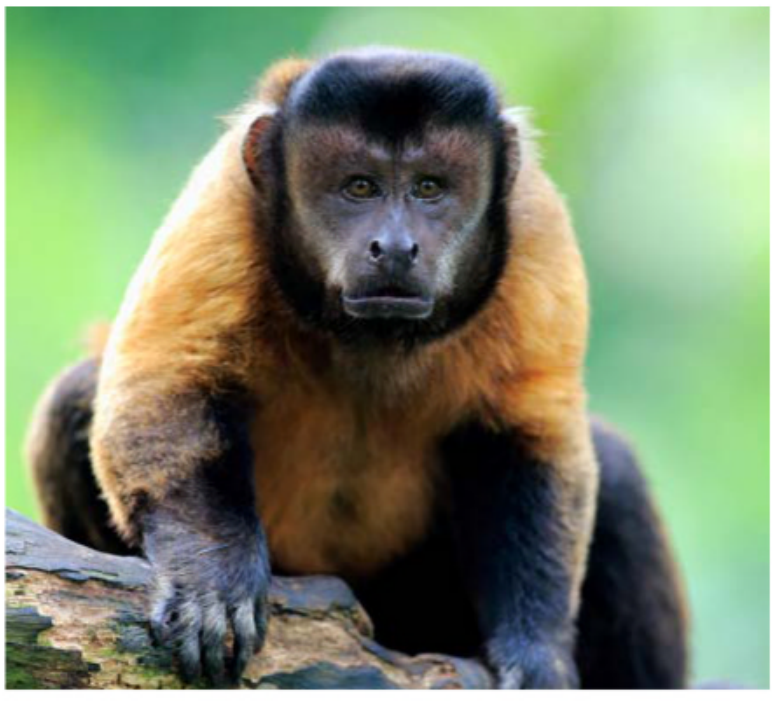
In a galaxy far, far away, the fluffy Ewoks belie their adorableness when they prove ferociously adept at taking down stormtroopers while the rebels work to deactivate the shield protecting the Empire's second Death Star.

ANIMAL MORALITY: IS IT REAL?

Researchers have long wanted to know if good and evil exist in the animal kingdom. A growing body of research says yes—but it's complicated

BY RICHARD JEROME

THE KINDEST CRITTERS



CAPUCHIN MONKEYS
Weighing just seven pounds, comparable to a newborn baby, capuchins are becoming increasingly popular for their helpful nature. Organizations such as Helping Hands match trained monkeys with people living with paraplegia and quadriplegia in order to help them fulfill daily activities like grabbing objects and turning on switches.

CROWS
Known as the messengers of death, these seemingly melancholy birds also recognize what the concept of death means. Along with equally intelligent counterparts ravens, jays and magpies, crows loudly squawk to each other and gather around fallen comrades, similar to how humans hold funerals.

ANIMALS HAVE BEEN AVATARS OF GOOD AND EVIL ever since that serpent snookered Eve in Genesis 3:1. And since then too, we've been convinced we've got their number—that as the smartest of all animals we can figure out the lesser ones. Gazing into their eyes, we can sense deep wells of emotion and temperament—souls, in other words, with unique personalities and even moral character.

Examples of "good" and "bad" animals are legion in folklore, literature and the arts. Dogs, for instance, are cherished archetypes of unconditional love, unstinting devotion and even heroism. Thumb through a book on the history of Western art and you'll find hounds, spaniels and terriers everywhere—symbols, scholars say, of loyalty and fidelity. Hollywood dogs—Lassie, Rin Tin Tin, countless more—are almost uniformly virtuous (apart from the occasional Cujo). With cats—more aloof, independent and naturally predatory—it's complicated.

Other animals similarly fall into good camps and bad camps. In our collective consciousness, intelligent elephants and horses are beloved. Rats and bats, not so much. Human perceptions and biases aside, do animals really possess something like morality—or is the very idea an anthropomorphic fantasy? Factors that shouldn't make any difference—cuteness especially—play a big role. Put feathers on a bat and it's not so bad. Take the big, dark eye spots off a panda and it's just a lazy, beady-eyed bear.

So maybe animals are purely amoral creatures, beasts driven by self-interested instinct alone, to which humans then assign moral value. Morality would seem to require nonhuman animals to possess a measure of consciousness and self-awareness, if not self-reflection. Experts have long debated this issue, an argument made more challenging because animals lack language, which makes it hard to get inside their heads. In 2012, however, a group of prominent neuroscientists issued the Cambridge Declaration of Consciousness, stating, based on voluminous animal brain and behavioral research, "[T]he weight of evidence indicates that humans are not unique in possessing the neurological substrates that generate consciousness. Non-human animals, including all mammals and birds, and many other creatures, including octopuses, also possess these neurological substrates."

Even if we grant some animals sentience, though, it doesn't have to mean they know right from wrong. Yet Dale Peterson, author of *The Moral Lives of Animals*, among many other books, thinks that many animals do. "There are a number of different theories," he says. "There's the supernatural—that we were amoral animals before God gave us morality. There's the idea that at some point society constructed morality and people refined it. Then there's the evolutionary theory that I believe and argue on behalf of."

He's not alone. Frans de Waal, a professor and primate behaviorist at Emory University, has long studied the social lives of bonobos and chimpanzees,

DOGS
Yes, they love us—a lot. According to a 2018 paper, when dog owners closed themselves off in a small room and happily hummed, their dogs would let an average of 96 seconds elapse before they'd come looking for them. When the owners feigned distress, the dogs burst in after just 23 seconds.

RATS
Rats also have empathy behind their beady little eyes. One 2011 study found that when one rat was placed near a rat in confinement, the free rat would rescue its friend. In the same study, the rat would choose to save his friend before taking a piece of chocolate—and then share the chocolate.

and he concludes that these primates share certain moral or ethical behaviors previously thought to be ours alone. "I don't believe animals are moral in the sense we humans are—with a well-developed and reasoned sense of right and wrong," he told Britain's *Daily Telegraph*. "Rather that human morality incorporates a set of psychological tendencies and capacities such as empathy, reciprocity, a desire for cooperation that are older than our species. Human morality grew out of our primate psychology. Other animals show many of the same tendencies."

De Waal's research has found that reciprocity is especially well-developed among chimpanzees. When one chimp grooms another in the morning, chances are the groomee will remember the kindness and be more likely to share food with the groomer later in the day. Exchanges like that may be transactional, but they represent a kind of code of conduct. Chimpanzees "hunt together. They defend their territory together. And they warn each other against predators," De Waal told NPR. "So, if you live in a group, you have to do each other favors."

In Peterson's view, morality springs from emotions, an evolutionary product housed in the limbic systems of human and animal brains alike. The ability to feel things, not merely to know them, produces a conscience, which in turn guides behavior. "Most of us are born with emotional systems that, when they're developed in social contexts, become moral codes," he says. "We tend to think of animal emotions as rage or fear or depression, but another emotional response is an early adherence to what I call proper authority—parents, for example."

In the case of domesticated dogs, it's people who have become the authority figures. "Dogs adapted to humans," Peterson says. "They respond very quickly to the person who gives them food and shelter. They have gestures and postures that really remind you of human response to authority. My dog will sit down in front of me and directly face me, and it really is like sitting in church, bowing and praying."

Researchers have discerned a similar respect for authority—and for what might be called the rules of the game—in a number of animal populations. "One of the things I've studied is what we call social play and fair play codes of conduct," says Marc Bekoff, a professor emeritus of ecology and evolutionary biology at the University of Colorado, Boulder, and the author of *Wild Justice: The Moral Lives of Animals*. Play fighting is an important social ritual among many animals, Bekoff explains, but it's essential for group cohesion that participants follow the rules and don't play too roughly. Yes, they mount and bite and body-slam each other, but it's somewhat akin to pro wrestling—they're not supposed to play for keeps. To initiate a play session, a wolf, coyote or dog makes use of a gesture called the "bow," crouching on its forelimbs for a quick fraction of a second.

"Play bows are honest signals, a sign of trust," says Bekoff, adding that the animals also bow to apolo-

THE ROGUES' GALLERY

CRESTED PENGUINS
Movies have made us love them, but crested penguins are brutal when it comes to their eggs. The mothers produce two eggs per season, the first of which is significantly smaller. Sometimes she will kick the smaller egg from the nest; sometimes she will refuse to incubate. Either way, the littler guy is doomed to die.

HIPPOS
Spending 16 hours per day hidden from their surface surroundings, hippos seem harmless—but they're lethal. Weighing up to four tons, they kill about 500 people in Africa each year—probably trying to defend their territory. A hippo can easily tip a boat; in 87% of cases, attacks are fatal, compared with 75% of lion attacks.

gize if things get out of hand. "A bow might communicate something like, "Sorry I bit you so hard—I didn't mean it."

Wolves, which live in tightly regulated packs, are known to put a premium on fair play too, so much so that the bigger and stronger among them sometimes "self-handicap," magnanimously pulling their punches—or bites or tackles—to level the contest. "For instance," Bekoff says, "a dominant wolf will switch roles with wolves lower on the pecking order by showing submission and allowing them to bite."

Studies show that empathy and compassion also appear to drive animal morals and ethics. "You see empathy in lots of different animals," Bekoff says. "Taking care of wounded animals, feeding them if they can't get food, consoling one another in cases where there's a lot of stress and fear."

The mechanisms behind this behavior are similar to our own. Behavioral and brain studies indicate that some animals have the same neurological structures and processes that are at play when humans express empathy. De Waal and Emory neuroscientist Larry Young conducted research on prairie voles—small rodents akin to mice—and noted that they console each other by grooming and caressing in times of distress. The researchers found that during these moments, the voles' brains produced an abundance of oxytocin—known as the "cuddle hormone"—which spikes in humans when we express affection for a loved one.

When it comes to empathy, few animals show more emotional intelligence than the elephant. Oxford University zoologist Iain Douglas-Hamilton has spent decades conducting elephant research and has found, for example, that individuals will sometimes come to the aid of sick and injured herd members. Hamilton has recounted the story of a herd matriarch named Eleanor, who suddenly took ill. Another female in her group gently tried to help Eleanor to her feet and remained by her side until the matriarch died.

There have even been reports that elephants have displayed cross-species empathy. In South Africa in 2003, a herd of 11 elephants liberated some antelope that were being held behind an enclosure by a game company that planned to farm them out for breeding. The herd matriarch, Nana by name, used her trunk to undo the metal latches that were holding the front gate closed. Then she swung the front doors open, allowing the animals to flee. There is no way of knowing Nana's motivation. Perhaps the metal latches were just an amusing puzzle and the fact that she released the antelopes made no difference to her. Or perhaps it was just the act of charity—one that conferred no direct benefit on Nana herself—that it appeared to be. Only Nana knows.

Apparent animal empathy shows up in some species to which we would not typically attribute such generosity of spirit—vampire bats, for instance. The animals really do need to drink blood every night.

POLAR BEARS
Polar bears are pitiless predators, but they'd draw the line at cannibalism, right? Wrong. There are growing reports of polar bears eating each other, from malnourished mothers eating their cubs, and vice versa, to males attacking much smaller females. Dismal food supplies resulting from climate change is the likely cause.

SAND TIGER SHARKS
Sand tiger sharks are predators before they leave the womb. The largest of about a dozen embryos in each of the mother's two uteri consumes the smaller siblings until just one from each womb remains. The cannibals then feed on unfertilized eggs in the womb. The mother gives birth to both—trained killers from their first day.

Found in Mexico and Central and South America (not Transylvania), they conduct nocturnal foraging missions, emerging from dark caves, mines and abandoned buildings to draw blood from cows, pigs, horses and birds. Bats use their fangs—what else?—to break their prey's skin and then lap up the blood with their tongues (usually without harming the animals, which have been known to sleep through the entire experience). It's a hit-or-miss affair—sometimes they struggle to find their targets. But the bats that do manage to rustle up some blood will sometimes share it with their pals and relatives that came up empty—standing aside to let them drink from the same source—especially if the blood-challenged bat had previously shared with them.

In literature and popular culture, of course, vampire bats are icons of animal evil. But is there really such a thing? Many thinkers would agree that true evil requires a level of intent and premeditation unique to the *Homo sapiens* mind. "I've personally decided that only humans are capable of true evil," the famed primatologist Jane Goodall told NPR. Indeed, even the most fearsome animal predators aren't known to hunt other species for sport and pose triumphantly with their vanquished prey. Cruelty—the willful infliction of suffering, pain or death for their own sake—springs from the same "advanced" human intelligence that has produced science and the arts. If animals don't unravel the double helix or paint the Sistine ceiling, nor do they burn heretics at the stake, lynch innocents before rabidly approving crowds or commit genocide.

Still, too much of the animal mind remains an enigma to give all nonhumans a free pass on evil. It was Goodall, in fact, who documented what was essentially a turf war between chimpanzees in Tanzania's Gombe Stream National Park. Until then, she had formed the opinion that these human relatives were "rather nicer" than people. But in this conflict, which lasted from 1974 to 1978, she observed incidences of excess brutality bordering on torture, cannibalism, rape and other atrocities. Yet she told Bill Moyers, such cruelty was not deliberate. "You know, we plan a torture, whether it's physical or mental. And in cold blood we can execute it. The chimpanzee's brutality is always . . . the spur of the moment."

Bekoff points to what's known as surplus killing—when predators massacre more prey than they can possibly consume. "For example, the fox in the henhouse," he says. "They go in and kill 1,000 chickens but don't eat any. I don't know if that's necessarily evil, because I don't know why they do it. Is the fox saying to himself, 'I don't like you bastards and I'm just gonna kill you all'? We just don't know."

That, of course, is the rub: not only don't we know, we'll never know. Animal behavior is complex but mysterious, explicit but unexplained. What looks like good and evil may well be just that—or they may be something else entirely. And the animals, as always, aren't saying. □

TALES OF TRUE HEROISM

There's a wonderfully democratic quality to heroes. They don't have to be soldiers or police officers or first responders (though many are). Sometimes they're just ordinary people who, in an extraordinary moment, give us a glimpse of what true courage is

BY COURTNEY MIFSUD

ROSA PARKS ›

A seamstress left her job at the Montgomery Fair department store in Montgomery, Ala., on Dec. 1, 1955. She boarded a bus and took a seat in the fifth row. When the bus began to fill up, the driver ordered the black passengers to stand, a humiliating Jim Crow policy enforced at the time. But the seamstress, Rosa Parks, refused to obey.

"People always say that I didn't give up my seat because I was tired, but that isn't true," Parks later recalled. "I was not tired physically, or no more tired than I usually was at the end of a working day. . . . No, the only tired I was, was tired of giving in."

Parks did not resist police as they arrested her, but her simple act of resilience sparked a fire in the civil rights movement. Her arrest led to the Montgomery bus boycott, which lasted 381 days, and helped inspire further marches and sit-ins, ultimately resulting in the legislation that would grant African Americans equal rights in the United States. "At the time I was arrested, I had no idea it would turn into this," Parks said decades later. "It was just a day like any other day. The only thing that made it significant was that the masses of the people joined in."

7053

TANK MAN

A day after the Tiananmen Square massacre in 1989, when Chinese troops and police attacked and killed hundreds of pro-democracy students, workers and children, a single anonymous man would become an enduring symbol of the defiance in Beijing. The morning following the massacre, Associated Press photographer Jeff Widener scoped out the plaza from a sixth-floor room of a nearby hotel. A column of tanks drove through the streets, and in a fleeting moment a figure appeared. Ordinary looking, with a white shirt and black pants, carrying shopping bags, a man stepped in front of the procession of 18 tanks.

"I assume he thinks he's going to die," recalled Widener. "But he doesn't care, because for whatever reason—either he's lost a loved one or he's just had it with the government, or whatever it is—his statement is more important than his own life."

The anonymous man holds up his hand in the universal symbol for "stop," then climbs atop the tank and speaks a few words to the first tank's driver, which, according to unconfirmed reports, were, "Why are you here? My city is in chaos because of you."

Once the man descended from the tank, bystanders pulled him in, anxious for his safety, and that's where his story seems to end. The world might not ever know his name—or what happened to him after his moment in history passed—but the man in Tiananmen Square became a symbol for fearless resistance in the face of destructive regimes.

SGT. ALVIN YORK

The pacifist assistant pastor of Tennessee's Possum Trot Church was not made for soldiering. Still, he had no choice but to fight in World War I when the Army drafted him in 1917. So newly inducted Sgt. Alvin York indeed fought—and became one of the war's most celebrated soldiers in the process.

York had to work with religious officers to reconcile his mission with his faith, and on Oct. 8, 1918, he was called upon to act. At dawn, his company faced heavy machine-gun fire. Only a handful of the men were left alive and unhurt, and they took cover—but not York.

"I sat right where I was, and it seemed to me that every machine gun the Germans had was shooting at me," he said. York killed a reported 20 or more soldiers, along with a second wave wielding bayonets. The German officer ordered the remaining soldiers to surrender, and York marched 132 prisoners off to the U.S. camp.

JOHN MCCAIN

In 1967, North Vietnamese and American pilots took to the skies to do battle. That's where John Sidney McCain, a young naval aviator with an attitude problem and a top admiral for a father, faced one of his greatest tests. Shot down over Hanoi on October 26, a severely wounded McCain was captured by the North Vietnamese. Despite interrogations and torture and no real access to medical care, the airman wouldn't crack.

When asked to name the various men in his squadron, he instead offered up the names of the offensive line of the Green Bay Packers. Prisoners were supposed to be released in the order that they arrived, so when the Vietnamese captors offered to let McCain go home before men who had been there longer, he refused. "I knew that the code of conduct says, 'You will not accept parole or amnesty,' and that 'you will not accept special favors,' " McCain recalled years after his release. "For somebody to go home earlier is a special favor. There's no other way you can cut it."

McCain spent 5½ years in the prison before his release in 1973. In the following decades, he would serve four years in the U.S. House of Representatives and 31 years in the U.S. Senate and make two runs for the presidency—becoming the Republican Party nominee in 2008. "It's not just that he survived being hung by ropes from two broken arms and beaten senseless; it's that when his captors learned of his famous father and offered to let him go home, he refused unless they let the rest of the prisoners go as well," TIME wrote in 1999. "Such conduct enthralls a generation that aches for heroes and doubts the moral detour it took during the years John McCain was becoming the icon of Duty, Honor and Country."

JACKIE ROBINSON ›

Before there were Rosa Parks and Martin Luther King Jr., before the sit-ins and marches, before blacks and whites could use the same bathrooms and water fountains, a baseball player helped pave the way for equality and integration. On one afternoon in Brooklyn, Jackie Robinson, the rookie Brooklyn Dodger, broke the color barrier by stepping onto the field in the top of the first inning against the Boston Braves. It was April 15, 1947, when the 28-year-old African-American baseball player began his groundbreaking career in the major leagues. It wasn't the stolen bases, home runs or Hall of Fame induction that made Robinson a hero. Throughout his early playing days, he showcased a silent stoicism in the face of racial injustices and taunts. But Robinson would not stay silent forever; in the years after his retirement, he became a vocal civil rights leader, fighting for equality in the much larger world beyond the baseball diamond.

SGT. RON HELUS

Sgt. Ron Helus, a Ventura County sheriff's deputy, was on the phone with his wife when he responded to a call of a shooting at the Borderline Bar & Grill on Nov. 8, 2018. "I've got to go handle a call. I love you. I'll talk to you later," he said. As it turned out, he would never have that opportunity. One of the first officers through the door, Helus was shot several times and killed as he tried to stop the gunman, who killed 11 others in the Thousand Oaks, Calif., attack. "He went in to save lives, to save other people," Sheriff Geoff Dean said in the aftermath. Sgt. Eric Buschow told CNN: "I don't think there is anything more heroic than what he did."

EDITH WINDSOR ›

The gay-rights activist whose landmark case prompted the Supreme Court to grant, for the first time ever, same-sex marriage partners the same rights granted to married men and women, was only trying to obtain a tax refund. Edith Windsor and her spouse, Thea Spyer, were legally married in Canada in 2007, but because of the Defense of Marriage Act of 1996, the federal government did not recognize their union as spouses. After Spyer died in 2009, Windsor was billed $363,053 in federal taxes because of the estate she inherited from her spouse. If the marriage were recognized by the federal government, she would have been billed nothing. Windsor sued, claiming that the law unconstitutionally singled out homosexual marriage partners for "differential treatment." In 2013, the Supreme Court overturned key parts of DOMA in a 5–4 ruling. In 2015, the court went further, ruling that all states must recognize same-sex marriages.

"America's long journey towards equality has been guided by countless small acts of persistence, and fueled by the stubborn willingness of quiet heroes to speak out for what's right," former president Barack Obama said in a statement about Windsor's death in 2017. "Few were as small in stature as Edie Windsor—and few made as big a difference to America."

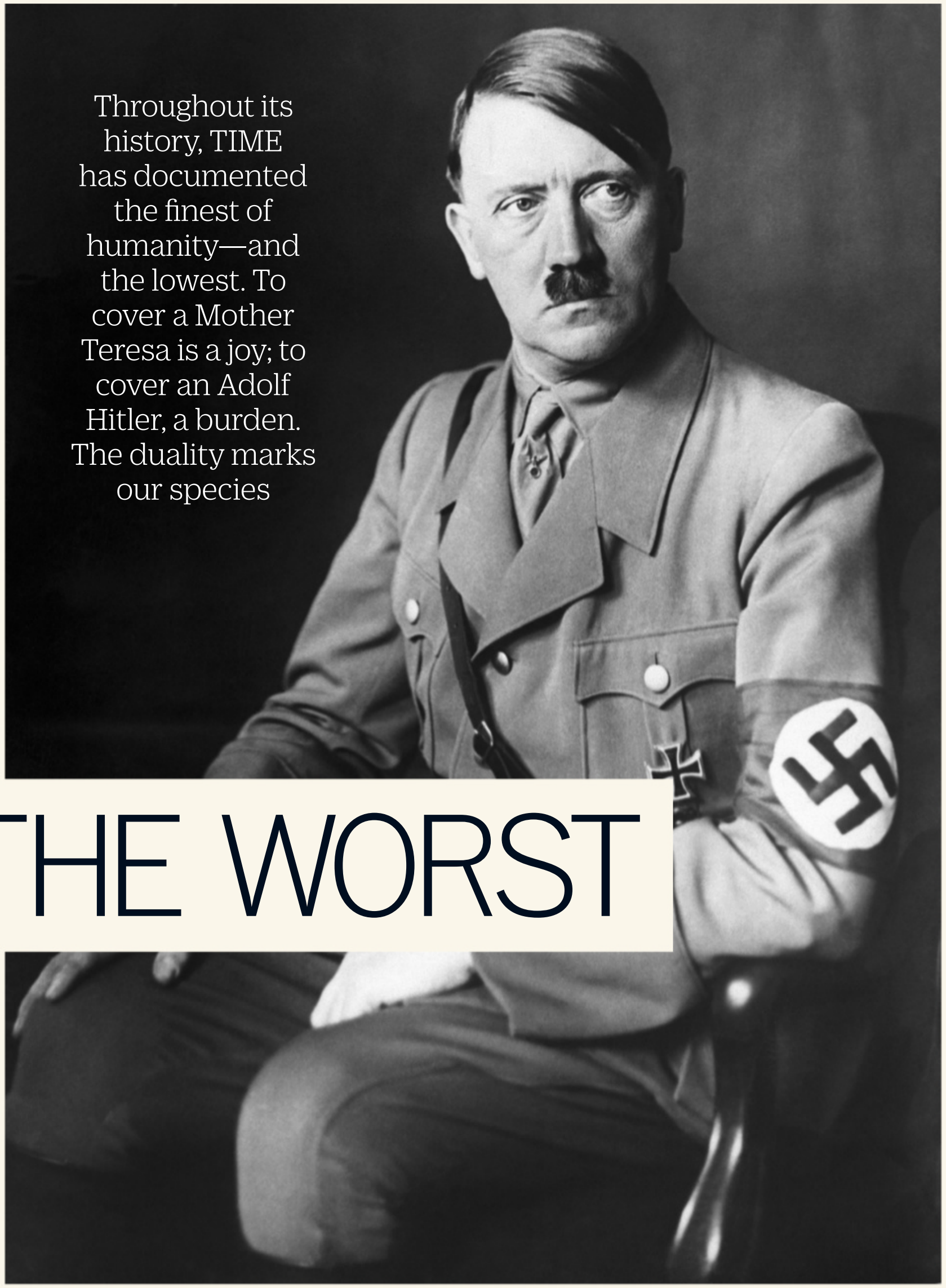
‹ WITOLD PILECKI

Who would sign up to go to hell on earth? World War II's Auschwitz concentration camp, where 1.5 million people died during the camp's operation, was possibly the closest to it our world has ever seen. Nonetheless, one man volunteered to go inside. In September 1940, a Polish officer named Witold Pilecki chose to become part of the German roundup in Warsaw, bound for the new German camp. The decision was part of a shocking operation by Poland's anti-Nazi underground. At the time, little was known about the nature or conditions of the camp, so Pilecki would gather information and try to organize a resistance movement from within.

"I think he knew, he realized what he was getting himself into," Jacek Pawłowicz, a historian at Poland's Institute of National Remembrance, told *The Atlantic* in 2012. "But even so, he was not prepared for the things he was actually able to witness."

The next three years became one of the most dangerous intelligence-gathering operations of the war. Pilecki's report included life inside Auschwitz, along with its transition from a detention facility to the Nazi massacre site. A successful uprising never came, but Pilecki was able to survive, and in 1943 he escaped the camp. His report remained unpublished for decades, until 2012, when it was translated into English and titled *The Auschwitz Volunteer*. In his introduction to the report, historian Norman Davies wrote, "Pilecki's name mirrors the tragic fate of millions whom the West forgot. Only when one grasps the true horror of this fate can one comprehend what the Second World War in Europe was really about."

THE BEST &



Throughout its history, TIME has documented the finest of humanity—and the lowest. To cover a Mother Teresa is a joy; to cover an Adolf Hitler, a burden. The duality marks our species

THE WORST

MOTHER TERESA

THERE MAY HAVE BEEN NOBODY IN THE WORLD less troubled by Mother Teresa's failing health than Mother Teresa. For one thing, she had lived a long life, having entered the world in the late summer of 1910 and ultimately not leaving it until the same season 87 years later. That's whole lot of time to do a whole lot of good—and she did. One of her important jobs in her last year of life was to choose a successor to oversee the global web of missions she had built—a network of virtue that had started as a single hospice in Calcutta in 1950.

So when Mother Teresa did die, having lived her life honoring not only the traditional Catholic vows of poverty, obedience and chastity but an additional one that she requested the church impose—to devote herself to the care of the poor and needy—she went serenely, perhaps even joyfully, secure in one of her core beliefs: that to die is to be born into eternal life. The world, too, treated her passing less with grieving than with a sweet sorrow.

Mother Teresa came to us old already, it seemed. She was 69 when she won the Nobel Peace Prize in 1979, which is when so many started to take notice of her. Just five feet tall, with a deeply creased face that would look careworn if it didn't also look so kind, she was the picture we conjure up when we want to conjure a saint—which she ultimately became. We didn't so much lose her as hand her up to heaven.

The century in which Mother Teresa—Saint Teresa—lived her entire life was one that broke the hope of some of even the most stalwart souls, but it also offered reasons for optimism. Those 100 years may have produced the man who became humanity's defining figure of evil—Hitler—but they also produced at least a handful of people who, in addition to Mother Teresa, similarly defined the good: Martin Luther King Jr., Mohandas Gandhi, Nelson Mandela, the Dalai Lama, Elie Wiesel. It is mercifully easier to pick a worst person who ever lived than it is to pick a best, especially when a single span of 10 decades offers so many worthy candidates.

And yet there was something particular about Mother Teresa. It was in the nature of the work of King and Gandhi and all the others that they had to push themselves forward, make themselves known. You can't lead a people if you don't give them a compelling reason to follow you. That requires pride, a cardinal sin, but it is a sin that had to be committed to achieve a larger good.

Mother Teresa pushed herself forward to no one, made herself known to no one, at least at first, except to the poor and the dying she tended in that first mission and then in all of the others to follow. We, it somehow seemed, found her, were drawn to her by a certain moral gravity.

As history would have it, Mother Teresa and Princess Diana would die in the same Labor Day week in 1997, just five days apart—a convergence that improbably answered a question that had always been intended to be rhetorical. Critics of the media's preoccupation with the Diana story occasionally asked how the coverage of a princess could so exceed the coverage of someone who was certain to be a saint—and how that coverage would compare when both women met their ends. And then we saw.

Diana's death consumed the media for weeks—years, even, and in some ways goes on; Mother Teresa's, less so. TIME ran two consecutive cover packages on Diana and, in that second issue, included an extended story on the little woman of Calcutta, which is reproduced in full here.

Was that imbalance a mistake—a response more to the fierce urgency of the news business now than to the long view of history? Perhaps. But perhaps it was the right choice too. Mother Teresa, who may or may not have been the best soul who ever lived, was surely one of the humblest. She lived with a quiet, poetic dignity and deserves to be remembered the same way. *—Jeffrey Kluger*

In her 87 years of life, Mother Teresa became a physical embodiment of holiness, virtue and service. Beyond those 87 years, her spirit and her message live on.

A LIFE THAT WAS LIVED IN FULL

SOULS IN SEARCH OF FINAL BLESSING OFTEN came to the temple of a powerful Hindu goddess in Calcutta. But nearby, many discovered another source of solace: a small woman, wrinkled and bent, a willing companion to the dying. She tenderly cared for the abandoned and the sick, washing their wounds, soothing their sores, preparing them for death. "They must feel wanted, loved," Mother Teresa said. "They are Jesus for me."

Only physically did Mother Teresa's heart fail her, subjecting her to years of illness that finally led to her death last week at age 87. She had always been adamant about who owned her heart. "People think we are social workers," she once told one of her spiritual advisers, Father Edward Le Joly. "We are not. We serve Jesus. I serve Jesus 24 hours a day."

She was true to her master through the obscurity in which she first labored, through the acclaim that began in the 1960s, through the sometimes heated denunciation that ensued when she defended controversial church teachings on contraception. She was not some saintly relic but a willing servant of her God: "I am like a little pencil in [God's] hand. He does the thinking. He does the writing. The pencil has only to be allowed to be used."

For those who believed and perhaps even for those who merely admired her, Mother Teresa was a living saint, drawing both rich and poor to her side and to the message of God. She could, wrote Malcolm Muggeridge in his 1971 book *Something Beautiful for God*, "hear in the cry of every abandoned child the cry of the Bethlehem child; recognize in every leper's stumps the hands which

once touched sightless eyes and made them see."

Saints—like princesses popularly invested with the image of goodness—are even more powerful in death. Those who loved Mother Teresa have long been murmuring hopeful prayers for her official canonization in the Roman Catholic Church she served so faithfully. That may not be imminent, but for many, there can be no doubting it, no devil able to advocate otherwise. Already, her humble ways and the grand religious enterprise she founded are worthy of veneration and emulation.

The woman who became Mother Teresa was born Agnes Gonxha Bojaxhiu on Aug. 26, 1910, the daughter of a prosperous, ethnic-Albanian business contractor in Skopje, now the capital of Macedonia. When she was 7, her father Nicholas died during what may have been a Balkan ethnic brawl. She would always be silent about her early life, but she told Muggeridge she had a vocation to serve the poor from the time she was 12. At 18, Agnes joined Ireland's Sisters of Loreto and took the name Teresa in honor of the French saint Thérèse of Lisieux, renowned for her piety, goodness and unflinching courage in the face of illness and early death.

TERESA TOLD VOLUNTEERS THAT THE WORK WOULD REQUIRE A "BURNING FIRE"

After a brief period in Rathfarnham, where she learned English at the order's abbey, Sister Teresa sailed for India. She spent the next 17 years as a teacher and then principal of a Calcutta high school for privileged Bengali girls. It was on Sept. 10, 1946, during a train ride to Darjeeling for a religious retreat, that Teresa received a "call within a call" in which she felt God directed her to the slums. "The message was quite clear," she told colleagues. "I was to leave the convent and help the poor whilst living among them. It was an order."

Two years later, after her adopted homeland won independence, Teresa received permission from Rome to strike out on her own. Attracting a dozen disciples, she started what she called her "little society." The nuns crept along the harsh streets of Calcutta in search of mankind's most miserable; the sisters had to beg for their own support, even their daily meals. "There were times during the first three or four months," says Teresa's biographer, Navin Chawla, "when she'd be humiliated, and tears would be streaming down her cheeks. [She] told herself, 'I'll teach myself to beg, no matter how much abuse and humiliation I have to endure.'"

She soon asked the Vatican if she and her followers could take a vow supplementary to those of poverty, chastity and obedience: "to devote themselves out of abnegation to the care of the poor and needy who, crushed by want and destitution, live in conditions unworthy of human dignity." It took Rome two years to say yes, and in 1950 the Vatican formally established the Missionaries of Charity, commanding members of the order "unremittingly" to seek out the poor, abandoned, sick, infirm and dying. Teresa warned that it was work few persons could endure; each volunteer was told that only a "burning fire" would succeed. With the establishment of the order, Sister Teresa became Mother Teresa, leading a ministry to the destitute, doomed and dying. The order's guiding theme was her own: "Let every action of mine be something beautiful for God."

One of the Missionaries' first projects, in 1952, was to turn a former hostel beside a Hindu temple into a place where the poor of Calcutta, who often died alone in the streets, could spend their last hours in comfort and cleanliness. As a Catholic mission, the sisters faced alienation and neighborhood hostility. The temple priests even asked city authorities to relocate the newly named Nirmal Hriday, or Home for the Dying, hospice. But then one of the Hindu priests was found with advanced stages of tuberculosis after he had been denied a bed in a city hospital, reserved for those who could be cured. And so this representative of the enemies of the Catholic order ended up in a corner of the Nirmal Hriday, tended by Mother Teresa herself. When the priest died, she delivered his body to the temple for Hindu rites. News of this charity filtered out into the city, and Calcutta started its long love affair with the humble sisters.

Muggeridge brought that saintliness to the world's attention in a 1969 BBC documentary. In it,

he even claimed to have witnessed a miracle: footage from an area of the Home for the Dying that was deemed too dark to register on celluloid turned out on processed film to be bathed in a "particularly soft light" that Muggeridge likened to love, "luminous, like the halos artists have seen and made visible round the heads of saints." While the episode was celebrated worldwide, cameraman Ken Macmillan had a down-to-earth explanation: he had used a brand-new kind of film from Kodak that was particularly sensitive. Nonetheless, visitors to the hospice noticed a beatific glow that surrounded the sisters ministering to the dying.

Miracle worker or not, Mother Teresa was now a media star. A decade after the documentary, she received the Nobel Peace Prize because "poverty and distress also constitute a threat to peace." At her request, the traditional banquet was canceled so the $7,000 cost could go to the poor. "We need to tell the poor that they are somebody to us," she told the audience of rich and honored guests, "that they too have been created by the same loving hand of God, to love and be loved."

Today some 4,000 sisters of the Missionaries of Charity, clad in white saris with blue borders, pursue her rigorous path, along with 450 brothers in a separate men's order. Mother Teresa created a network of 569 missions spread across 120 nations that operate workshops for the unemployed, food centers, orphanages, leprosariums, and refuges for the insane, retarded and aged. She won access to global leaders; she counted Princess Diana a personal friend; Pope John Paul II valued her as a revered colleague.

As her work earned fame around the world, money poured in from individual and corporate benefactors. Mother Teresa never worried about funding the many expanding activities of her order. "The Lord sends it," she once said. "We do his work; he provides the means." The order is reportedly flush with cash, though no outsider knows the exact wealth in its coffers. In India alone, revenue officials say, the group's assets exceed $41 million, which is largely in real estate.

> SHE WAS VOTED HEAD OF THE ORDER WITH ONE DISSENTING VOTE: HER OWN

Mother Teresa had a more controversial side: she was never afraid to speak and act with impunity on matters of the secular world. She repeatedly decried abortion. "If a mother can kill her own child, then what is left of the West to be destroyed?" she once said. At Harvard University's commencement in 1982 she called it "the greatest evil."

There have been charges that her sisters not only give succor to the dying but also ask if they want "tickets to heaven," surreptitiously baptizing lifelong Hindus and Muslims for Jesus. The sisters deny these accusations; in India such conversions would be met with outrage, and the charge is widely disbelieved. But such acts would be in keeping with Teresa's fervent devotion to the cause of Christ.

Recently she came under attack from those who believe, as George Orwell once wrote about Mahatma Gandhi, that all saints should be judged guilty until proved innocent. In 1994 Britain's Channel 4 broadcast a revisionist look at Teresa that was harshly titled *Hell's Angel*. Written by Pakistani-born leftist Tariq Ali and British columnist Christopher Hitchens, the program claimed that the Missionaries of Charity accepted donations from some unsavory individuals, including Haiti's former autocrat Jean-Claude Duvalier. In return, Mother Teresa and her sisters delivered effusive encomiums in favor of the rich and infamous eager to buy international respectability. Teresa replied that she had no moral right to refuse donations given for the poor and miserable. Hitchens followed up with a scathing, book-length critique called *The Missionary Position: Mother Teresa in Theory and Practice*, which noted that Mother Teresa once wrote to Judge Lance Ito requesting leniency for Charles Keating, whom he was about to sentence in the late-1980s savings-and-loan scandal. Keating had once contributed $1.25 million to the Missionaries of Charity.

The order's Home for the Dying in Calcutta also attracted criticism. Unlike in modern hospices in the West, the dying at the mission home are not provided with pain-killing drugs. In November 1996 a German volunteer questioned one of Teresa's nuns.

"I have heard you don't give any medicines," he said. The nun replied, "This is not a treatment center. This is a place where the dying can die with dignity."

For decades Mother Teresa was elected head of the order with only one dissenting vote: her own. But in the fall of 1996, she nearly succumbed to heart disease, and the sisters realized it was time to elect a successor. In March, 123 representative nuns gathered to pray for wisdom and chose a Hindu Brahmin convert named Sister Nirmala, whom one called a compassionate "carbon copy" of their revered leader.

The woman who has taken Teresa's place demurs, saying, "I'm not Mother Teresa; I'm Sister Nirmala. Please don't call me Mother." This 64-year-old, 4-foot, 10-inch nun, who sometimes refers to distances by the number of rosaries she can pray while traveling them, did not make her Christian conversion until age 17. She was moved to a new faith by the terrible religious carnage that attended the Indian partition in 1947 and by observing Mother Teresa in Calcutta, years later, attending to its refugees. "It was inspiration at first sight," says Nirmala, who became one of the order's first volunteers.

Teresa sent her to law school and made her the Missionaries' legal counsel. In 1965 Nirmala traveled to Venezuela to establish the order's first overseas mission; four years later, she was called back to Calcutta to join its contemplative wing, which emphasizes the mystical power of prayer, something dear to the heart of Teresa. As time went on, Nirmala acted as Teresa's nurse and companion. Now it is her turn to rely on Teresa's spiritual guidance. Though she may be afraid, she has said, "Looking at God, I am sure I will be able to do what I have been chosen for."

That will surely be different. Despite her celebrity status and a flourishing empire, Mother Teresa had a faith that was not of this world. She was intent on saving souls in an era that no longer believed souls existed. She overcame that skepticism with the paradox attributed to St. Francis of Assisi nearly eight centuries ago: in giving we receive; in dying we are born to eternal life. It was not a message the 20th century expected to hear or wanted to learn, and Teresa angered many with her simple, hardheaded adherence to it. But to many others, the rewards of her example were enormous. As hundreds of mourners gathered at Calcutta's mother house last week, a weeping Muslim driver explained, simply, "She was a source of perpetual joy," a holy commodity indeed.

ADOLF HITLER

IT'S HARD TO THINK OF ADOLF HITLER AS A thing of flesh and viscera and bone and blood—a functioning organism like the rest of us, someone who breathed and ate and slept and sweated. He wasn't a functioning organism for long—just 56 years from his birth in 1889 to his self-inflicted death in 1945. But he lived—continues to live—as a specter for much, much longer.

In a sense, he lived even before he lived—as a thing of dread: the monster in the cave, the creature down the well, the prophesied power that would one day plunge humanity into a mortal struggle for its own survival. Such mythical figures had emerged in all cultures, in all centuries, and then in the 20th, one emerged for real.

In the decades since his physical death, Hitler has lived on in a similar way: as moral touch point, a perverse gold standard for all that is wicked, all that is murderous. He is concept turned human, evil made flesh. He is, in the simplest and most straightforward way we can put it, the worst person who ever lived.

Really. Think about. Who would be worse?

Yes, we live inside our current and recent history, so that what is now or what is still near looms larger, closer than things in the more distant past. That includes our monsters too. So was Caligula actually the worst person who ever lived? First-century Romans probably thought so. Genghis Khan, whose 12th-century wars are thought to have killed as many as 40 million people, may have been the dark icon of that era. Ivan the Terrible did not come by his descriptor by

The world did not yet know what Adolf Hitler was capable of when he was named TIME*'s Man of the Year in 1939. The year before, he stood among fellow world leaders during the Munich Conference.*

accident, especially after the infamous massacre of the city-state of Novgorod in 1570, which saw up to 60,000 people claimed by the dictator's bloodlust.

The deaths Hitler authored, however, were different: they were mechanized, industrial, animated by a madman's hate—of Jews, Roma, gays, the disabled—and enabled by a modern technological infrastructure. Mao Zedong and Joseph Stalin may—or may not—have claimed more lives, but at least some unknown millions of them were caused by famine, the result of inept execution of a flawed ideology. Hitler's killings were intended, effectively premeditated, 11 million counts of first-degree murder in the Holocaust alone, never mind on the battlefields and in the bombed cities.

Hitler appeared on the cover of TIME on multiple occasions—most famously perhaps on Jan. 2, 1939, when he was named Man of the Year. That choice abided by the dictum of TIME founder Henry Luce, who decreed that the Man of the Year—now Person of the Year—was not an honor but instead should be a distinction applied to the newsmaker who most influenced world events for better *or worse*. In case that second criterion was lost on readers, the issue that named Hitler dispensed with the portrait treatment that cover subjects typically got. Instead he was depicted as a tiny figure with his back to the viewer, playing a massive organ with his murdered victims spinning on a St. Catherine's wheel. Underneath the stark, black-and-white illustration was the caption, "From the unholy organist, a hymn of hate."

The text of the story, which follows with some edits made principally for space, was both clear-eyed and prescient, written at a moment in history after the Reich's land grabs of Austria and Czechoslovakia (which TIME rendered both as *Czechoslovakia* and *Czecho-Slovakia*), but eight months almost to the day before the invasion of Poland that would trigger the full fury of a second global war. The Holocaust, surely already bubbling up in the fever swamp of Hitler's brain, was still a crime beyond human imagining—but that would change. In a world that can sometimes seem inured to evil, may we never see the likes of the unholy organist again. *—Jeffrey Kluger*

A MONSTER TOOK HISTORY'S STAGE

THE GREATEST SINGLE NEWS EVENT OF 1938 took place on Sept. 29, when four statesmen met at the Führerhaus, in Munich, to redraw the map of Europe. The three visiting statesmen at that historic conference were Prime Minister Neville Chamberlain of Great Britain, Premier Edouard Daladier of France and Dictator Benito Mussolini of Italy. But by all odds the dominating figure at Munich was the German host, Adolf Hitler.

Führer of the German people, Commander-in-Chief of the German Army, Navy & Air Force, Chancellor of the Third Reich, Herr Hitler reaped on that day at Munich the harvest of an audacious, ruthless foreign policy he had pursued for 5½ years. He had torn the Treaty of Versailles to shreds. He had rearmed Germany to the teeth—or as close to the teeth as he was able. He had stolen Austria before the eyes of a horrified and apparently impotent world.

HITLER STRODE OVER A CRINGING EUROPE WITH THE SWAGGER OF A CONQUEROR

All these events were shocking to nations which had defeated Germany on the battlefield only 20 years before, but nothing so terrified the world as the ruthless, methodical, Nazi-directed events which during late summer and early autumn threatened a world war over Czechoslovakia. When without loss of blood he reduced Czechoslovakia to a German puppet state, forced a drastic revision of Europe's defensive alliances and won a free hand for himself in Eastern Europe by getting a "hands-off" promise from powerful Britain (and later France), Adolf Hitler without doubt became 1938's Man of the Year.

Most other world figures of 1938 faded in importance as the year drew to a close. Prime Minister Chamberlain's "peace with honor'' seemed more than ever to have achieved neither. Among many Frenchmen there rose a feeling that Premier Daladier, by a few strokes of the pen at Munich, had turned France into a second-rate power. Aping Mussolini in his gestures and copying triumphant Hitler's shouting complex, the once liberal Daladier at year's end was reduced to using parliamentary tricks to keep his job.

During 1938 Dictator Mussolini was a decidedly junior partner in the firm of Hitler & Mussolini. His noisy agitation to get Corsica and Tunis from France was a weak bluff whose objectives were no more than cheaper tolls for Italian ships in the Suez Canal and control of the Djibouti–Addis Ababa railroad.

Gone from the international scene was Eduard Benes, for 20 years Europe's "Smartest Little Statesman." Last president of free Czechoslovakia, he was now a sick exile from the country he helped found. Pious Chinese Generalissimo Chiang Kai-shek, Man of 1937, was forced to retreat to a "New" West China, where he faced the possibility of becoming only a respectable figurehead in an enveloping Communist movement. If Francisco Franco had won the Spanish Civil War after his great spring drive, he might well have been Man-of-the-Year timber. But victory still eluded the Generalissimo.

On the American scene, 1938 was no one man's year. Certainly it was not Franklin Roosevelt's: his purge was beaten and his party lost much of its bulge in the Congress.

But the figure of Adolf Hitler strode over a cringing Europe with the swagger of a conqueror. Not the mere fact that the Führer brought 10,500,000 more people (7,000,000 Austrians, 3,500,000 Sudetens) under his absolute rule made him the Man of 1938. Japan during the same time added tens of millions of Chinese to her empire. More significant was the fact Hitler became in 1938 the greatest threat that the democratic, freedom-loving world faces today.

His shadow fell far beyond Germany's frontiers. Small, neighboring States (Denmark, Norway, Czecho-Slovakia, Lithuania, the Balkans, Luxembourg, The Netherlands) feared to offend him. In France, Nazi pressure was in part responsible for some of the post-Munich anti-democratic decrees. Fascism had intervened openly in Spain, had fostered a revolt in Brazil, was covertly aiding revolutionary movements in Rumania and Hungary. In Finland a foreign minister had to resign under Nazi pressure. Throughout eastern Europe after Munich

the trend was toward less freedom. In the U. S. alone did democracy feel itself strong enough at year's end to give Hitler his comeuppance.

The Fascintern, with Hitler in the driver's seat, with Mussolini, Franco and the Japanese military cabal riding behind, emerged in 1938 as an international, revolutionary movement. Rant as he might against the machinations of international Communism and international Jewry, or rave as he would that he was just a Pan-German trying to get all the Germans back in one nation, Führer Hitler had himself become the world's No. 1 International Revolutionist—so much so that if the oft-predicted struggle between Fascism and Communism now takes place it will be only because two revolutionist dictators, Hitler and Stalin, are too big to let each other live in the same world.

THE MAN MOST responsible for this world tragedy is a moody, brooding, unprepossessing, 49-year-old Austrian-born ascetic with a Charlie Chaplin mustache. The son of an Austrian petty customs official, Adolf Hitler was raised as a spoiled child by a doting mother. Consistently failing to pass even the most elementary studies, he grew up a half-educated young man, untrained for any trade or profession, seemingly doomed to failure. Brilliant, charming, cosmopolitan Vienna he learned to loathe for what he called its Semitism; more to his liking was homogeneous Munich, his real home after 1912. To this man of no trade and few interests the Great War was a welcome event which gave him some purpose in life. Corporal Hitler took part in 48 engagements, won the German Iron Cross, was wounded once and gassed once, was in a hospital when the Armistice was declared.

GERMANY HAS BECOME A NATION WHERE BOYS OF 10 ARE TAUGHT TO THROW HAND GRENADES

His political career began in 1919 when he became Member No. 7 of the midget German Labor Party. Discovering his powers of oratory, Hitler soon became the party's leader, changed its name to the National Socialist German Labor Party, wrote its anti-Semitic, antidemocratic, authoritarian program. The party's first mass meeting took place in Munich in February 1920. The leader intended to participate in a monarchist attempt to seize power a month later; but for this abortive putsch Führer Hitler arrived too late. An even less successful National Socialist attempt—the famed Munich Beer Hall Putsch of '23—provided the party with dead martyrs, landed Herr Hitler in jail. His incarceration at Landsberg Fortress gave him time to write the first volume of *Mein Kampf*, now a "must" on every German bookshelf.

Outlawed in many German districts, the National Socialist Party nevertheless climbed steadily in membership. Time-honored Tammany Hall methods of handing out many small favors were combined with rowdy terrorism and lurid, patriotic propaganda. The picture of a mystic, abstemious, charismatic Führer was assiduously cultivated.

Not until 1929 did National Socialism win its first absolute majority in a city election (at Coburg) and make its first significant showing in a provincial election (in Thuringia). But from '28 on the party almost continually gained in electoral strength. In the Reichstag elections of '28 it polled 809,000 votes. Two years later 6,401,016 Germans voted for National Socialist deputies, while in '32 the vote was 13,732,779. While still short of a majority, the vote was nevertheless proof of the power of the man and his movement.

That the German people love uniforms, parades, military formations, and submit easily to authority is no secret. Führer Hitler's own hero is Frederick the Great. That admiration stems undoubtedly from Frederick's military prowess and autocratic rule rather than from Frederick's love of French culture and his hatred of Prussian boorishness.

In bad straits even in fair weather, the German Republic collapsed under the weight of the 1929–34 depression in which German unemployment soared to 7,000,000 above a nationwide wind drift of bankruptcies and failures. Called to power as Chancellor of the Third Reich on Jan. 30, 1933, by aged, senile President Paul von Hindenburg, Chancellor Hitler began to turn the Reich inside-out. Unemployment

was solved by: 1) a far-reaching program of public works; 2) an intense rearmament program, including a huge standing army; 3) enforced labor in the service of the State (the German Labor Corps); 4) putting political enemies and Jewish, Communist and Socialist job-holders in concentration camps.

What Adolf Hitler & Co. did to Germany in less than six years was applauded wildly and ecstatically by most Germans. He lifted the nation from postwar defeatism. Under the swastika Germany was unified. His was no ordinary dictatorship, but rather one of great energy and magnificent planning. The 1,500 miles of magnificent highways built, schemes for cheap cars and simple workers' benefits, grandiose plans for rebuilding German cities made Germans burst with pride. Germans might eat many substitute foods or wear ersatz clothes but they did eat. What Adolf Hitler & Co. did to the German people in that time left civilized men and women aghast. Civil rights and liberties have disappeared. Opposition to the Nazi regime has become tantamount to suicide or worse. Free speech and free assembly are anachronisms. The reputations of the once-vaunted German centres of learning have vanished. Education has been reduced to a National Socialist catechism.

Germany's 700,000 Jews have been tortured physically, robbed of homes and properties, denied a chance to earn a living, chased off the streets. Now they are being held for "ransom," a gangster trick through the ages. But not only Jews have suffered. Out of Germany has come a steady, ever-swelling stream of refugees, Jews and Gentiles, liberals and conservatives, Catholics as well as Protestants, who could stand Naziism no longer. TIME'S cover, showing organist Adolf Hitler playing his hymn of hate in a desecrated cathedral while victims dangle on a St. Catherine's wheel and the Nazi hierarchy looks on, was drawn by Baron Rudolph Charles von Ripper, a Catholic who found Germany intolerable. Meanwhile, Germany has become a nation of uniforms, goose-stepping to Hitler's tune, where boys of 10 are taught to throw hand grenades, where women are regarded as breeding machines. The most cruel joke of all, however, has been played by Hitler & Co. on those German capitalists and small businessmen who once backed National Socialism as a means of saving Germany's bourgeois economic structure. Some idea of the increasing governmental interference in business could be deduced from the fact that 80% of all building and 50% of all industrial orders in Germany originated last year with the Government.

When Germany took over Austria, she took upon herself the care and feeding of 7,000,000 poor relations. When 3,500,000 Sudetens were absorbed, there were that many more mouths to feed. As 1938 drew to a close many were the signs that the Nazi economy of exchange control, barter trade, lowered standard of living, "self-sufficiency," was cracking. Nor were signs lacking that many Germans disliked the cruelties of their government, but were afraid to protest them. Having a hard time to provide enough bread to go round, Führer Hitler was being driven to give the German people another diverting circus. The Nazi-controlled press, jumping the rope at the count of Propaganda Minister Paul Joseph Goebbels, shrieked insults at real and imagined enemies. And the pace of the German dictatorship quickened as more & more guns rolled from factories and little more butter was produced.

In five years under the Man of 1938, regimented Germany had made itself one of the great military powers of the world today. The British Navy remains supreme on the seas. Most military men regard the French Army as incomparable. The biggest question mark is air strength, which changes from day to day, but most observers believe Germany superior in warplanes. Despite a shortage of trained officers and a lack of materials, the Germany Army has become a formidable machine which could probably be beaten only by a combination of opposing armies.

Last week Herr Hitler entertained at a Christmas party 7,000 workmen now building Berlin's new mammoth Chancellery, told them: "The next decade will show those countries with their patent democracy where true culture is to be found."

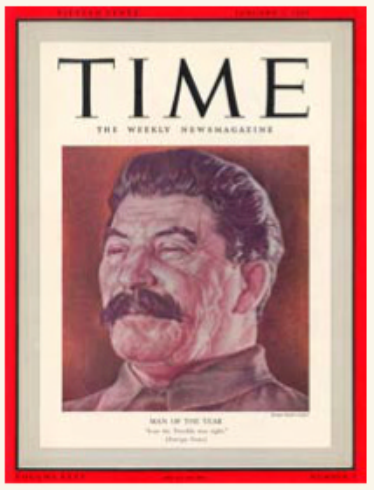
But other nations have emphatically joined the armaments race and among military men the poser is: "Will Hitler fight when it becomes definitely certain that he is losing that race?" The dynamics of dictatorship are such that few who have studied fascism and its leaders can envision sexless, restless, instinctive Adolf Hitler rounding out a mellow middle age in his mountain chalet at Berchtesgaden while a satisfied German people drink beer and sing folk songs. There is no guarantee that the have-not nations will go to sleep when they have taken what they now want from the haves. To those who watched the closing events of the year it seemed more than probable that the Man of 1938 may make 1939 a year to be remembered. □

COVERING GOOD AND EVIL

TIME's Person of the Year (né Man of the Year) is the newsmaker who has most affected world events—for better or worse

Martin Luther King, Jan. 3, 1964

Whistleblowers
Dec. 30, 2002



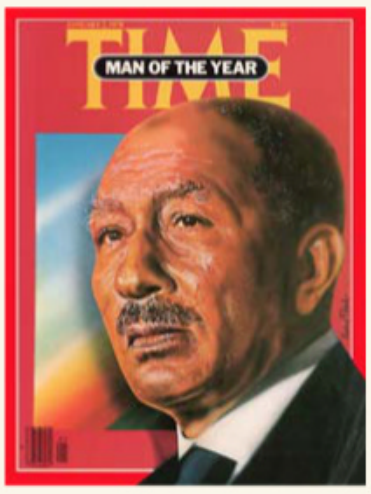
Josef Stalin
Jan. 1, 1940

Deng Xiaoping
Jan. 1, 1979

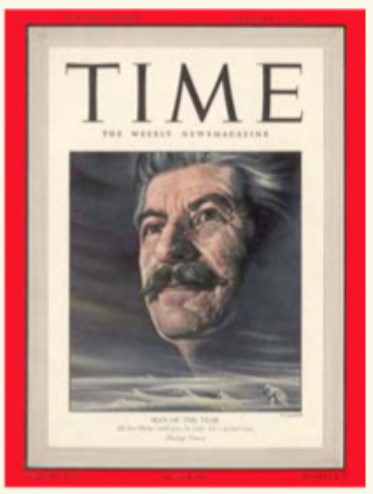
Mahatma Gandhi
Jan. 5, 1931

Nikita Khrushchev
Jan. 6, 1958

The Women of #MeToo
Dec. 18, 2017



Anwar Sadat
Jan. 2, 1978



Stalin redux
Jan. 4, 1943

Saudi King Faisal, Jan. 6, 1975

THE BEASTS WITHIN US

Rarely a day, rarely a minute goes by when we don't have to decide who we really are. Evil versus good is not a question of them and us and when. It is a question of us and us and now

BY STEVE LEDER

I DON'T REMEMBER MUCH FROM MY FRESHMAN Intro to Philosophy course 40 years ago, but I do remember a debate about the ancient Latin proverb "*Homo hominis lupus*—man is a wolf to men." A wolf in this case is meant to invoke something predatory, animalistic and without a conscience. I also remember learning that many centuries later Freud asked rhetorically of that same proverb: "Who, in the face of all his experience of life and of history, will have the courage to dispute this assertion?"

During my rabbinical studies I discovered that same man-as-self-predator thinking in the Talmud when the rabbis claimed, "Without government and law, people would swallow each other alive." Watch the news for five minutes and it's pretty hard to argue with any of them.

But there is a different view about human nature. On that other side is much of the Bible, Plato, Aristotle, Buddha, Aquinas, Dewey, Gandhi, Anne Frank and so many others who believed that people are basically good and kind. Watch the volunteers at any food pantry, consider the anonymous blood donor or a local patiently giving directions to a lost stranger and it's pretty hard to argue with any of them either.

We live surrounded by the fictional world of literature, film and television as well as a real world buffeted by political and military conflict. Both spheres so often perpetuate a dichotomy that's as old as humankind, positing good versus evil, us versus them. If only things were that simple. Ask any addict fighting to stay sober one day, one hour, one minute at a time. Ask any man or woman with a wandering eye deciding whether or not to remain his or her

best and truest self. Ask anyone who has ever felt tempted by anything, eaten of the apple and then felt shame. When it comes to good and evil, we are each at the center of our own existential drama, torn between two fundamental and oppositional forces wrestling within us for control.

The debate between those who believe we are wolves and those who do not begins anew for each of us again and again throughout the days, weeks, months, years and decades that become the sum of our lives. The question is not really about our essence but about our essence at a given time, in a given moment. This poses a spiritual and moral challenge not to or about others, but to each of us internally, and that challenge is perpetual until we die. "The line between good and evil," said the Soviet-era dissident Aleksandr Solzhenitsyn (who survived the gulag by eating rats and knew a good deal more than most of us about evil), "is not a line that separates us from them. It is a line that runs down the center of each of us."

WE ARE TORN BETWEEN TWO FUNDAMENTAL AND OPPOSING FORCES WRESTLING FOR CONTROL

In a religious context, this rift between good and evil is often understood in terms of heaven and hell. The common understanding is that if we are righteous in this life we will spend an eternity in a sort of utopian afterlife; and if we are wicked while alive we will forever endure unimaginable suffering in the netherworld. But heaven and hell is a far more complicated concept than a destination after death.

Consider the parable of a man who wants to know the secrets of heaven and hell. God grants his wish and sends him a guide to escort him first to hell, where they enter a large room in a beautiful palace. The residents of hell are seated around a banquet table. Golden platters are piled high with the most delicious food imaginable. But none of the food has been touched. The emaciated dinner guests are moaning from the constant ache of hunger. "If these people are so hungry, why don't they eat?" the man asks his guide.

"Look closely," the guide replies. "They are chained to their chairs, have no elbows, and their arms are locked straight before them. They cannot bend their arms to bring the food to their mouths."

The guide then takes the man up to heaven, where they enter a banquet room identical to the one they had visited in hell. The diners in heaven are also chained to their chairs and have the same unbendable arms as those in hell, yet here everyone is fed and happy. "What gives?" the visitor asks his guide. "Why are these people so happy if they can't help themselves to the food?"

Again the guide tells the man to look more closely. He does and discovers that each person is lifting his or her stiff, unbending arms to feed the person across the table.

A cynic might suggest that the people in heaven who are feeding one another across the table are doing so only to be fed themselves. That this is not evidence of people being "good" but simply of enlightened self-interest. But then why do the people in hell behave differently? Surely they are also self-interested. Surely they also want to be fed. Which means people in hell behave differently because hell lacks something present in heaven. That something is the ability to look outside oneself, to see and to care about others who are starving too.

The ancient rabbis in their imaginings about the Ten Plagues in the Bible ask how dark was the darkness described in the ninth plague. They answer that it was so dark the Hebrews and the Egyptians could no longer see the humanity in each other. Why on some occasions do I give money to the homeless woman who offers to wash my windshield at the gas station but on other occasions look away? Because like all of us for whom empathy comes and goes, I am sometimes in heaven and sometimes in hell. There are moments of light, many of them, when I can feel so keenly the suffering of others, and other moments when I am in a dark too dark to see and can think only of myself.

Maimonides said, "Each person should feel as if all the deeds of all the people in the world are being weighed on the scales of the heavenly tribunal and he or she should feel as if all the deeds of all humanity are in a perfect balance, and that the next deed that

We are forever living the temptation and the choice that was offered in Eden—and are forever choosing anew.

he or she does will tilt the scales for the entire world one way or the other." In the Maimonidean cosmology, the world depends upon whether or not we reach across the table. Most of us will never be confronted with a choice of whether to commit a heinous crime or to help cure someone who is gravely ill. We will likely never have to decide whether to save a life or look the other way. But rarely a day, rarely a minute goes by when we don't have to decide who we really are. Evil versus good is not a question of them and us and when. It is a question of us and us and now.

IT IS STRANGE to be writing this piece about the false dichotomy of good and evil and the complicated business of being human while sitting behind a sleek, marble desk overlooking the rooftops of Paris from a room at the Hotel Lutetia. The Lutetia was built in 1910, and its famous guests have included Pablo Picasso, Charles de Gaulle, André Gide, Peggy Guggenheim and Josephine Baker. James Joyce wrote part of *Ulysses* here. Things changed when the Nazis occupied Paris in June of '40 and the Abwehr (counter-espionage) "requisitioned" the hotel. They used it to house, feed and "entertain" the officers in command of the occupation. Ironically, today the Lutetia is owned by an Israeli company. The company recently spent hundreds of millions of euros to remodel and rebrand it. It is from this place, where some of history's cruelest men made some of its most vile decisions, that I am pondering good and evil after a enjoying a fresh-baked croissant and a frothy cappuccino. As it is with buildings, so it is with places and with people. We are each of us so many things. . . .

Homo hominis lupus? In the end, I don't buy it. It is too simple, too one-sided. I believe in a different wolf story. It's a wolf story of the Native American people. The story of a chief telling his grandchildren that there is a war going on inside every one of us. It is a war between two wolves. One is the wolf of kindness, humility, sharing, rescuing and peace, and the other is the wolf of self-interest, arrogance, violence, coldness and cruelty.

His grandchildren asked the great chief which wolf wins the fight inside us, and he said to them, "The wolf that will win is the wolf you feed." □

Steve Leder is the Senior Rabbi of Wilshire Boulevard Temple in Los Angeles and the author of More Beautiful Than Before; How Suffering Transforms Us.

A grieving Pittsburgh paid its respects at the synagogue where 11 worshippers died.

THE ONLY WAY FORWARD

In the wake of a 2018 mass shooting and a spate of mail bombs, a former TIME editor in chief argued that it's time we stop waiting for a cavalry of leaders or policymakers to fix what ails us. We must do it

BY NANCY GIBBS

HATE, AMONG ALL OUR BASE INSTINCTS, IS THE most distinctly human. In animals, violence and venom are typically tools of survival; in humans, of supremacy. Small, scared people hate, self-hating people hate, bullied and betrayed people hate, as though hate will make them large and safe and strong. The twisted writings of some of the most malevolent figures of 2018 suggest they felt called to their hatreds as a duty. Robert Bowers, the man charged with the slaughter of 11 worshippers at the Tree of Life Synagogue in Pittsburgh, allegedly blamed Jews for their outreach to refugees and vowed to repel "invaders" moving north through Central America as he set off on his murderous mission that day: "I can't sit by and watch my people get slaughtered," an account matching his name posted, like a martyr dispatched to a massacre.

Accused mail bomber Cesar Sayoc, charged with sending explosive devices to former president Barack Obama, former secretary of state Hillary Clinton, CNN and others, also allegedly targeted George Soros, the billionaire Holocaust survivor and Democratic donor who conspiracy theorists claimed was funding the imagined menace of a caravan of refugees at the southern border—never mind that those armed invaders were nearly a thousand miles away and the main thing in their arms were their children. "Whites don't kill whites," a witness quoted Gregory Bush as saying; he was arrested in the murders of two black shoppers at a Kentucky grocery store, allegedly having failed to get into a predominantly black church nearby.

We're having a master class on hate because we've no choice; it has moved from the part of our character we work hardest to suppress to the part we can least afford to ignore. Hate slipped its bonds and runs loose, through our politics, platforms, press, private encounters. And the further it travels, the stronger it grows. People unaccustomed to despising anyone, ever, find themselves so frightened or appalled by what they see across the divide that they are prepared to fight it hand to hand. Calls for civility are scorned as weak, a form of unilateral disarmament. President Trump calls for unity in the same breath that he undermines it, demonizing adversaries, minimizing threats, trivializing trauma.

So much attention is paid to the president's lies that we can miss his radical honesty. He didn't see any need to call the former presidents in the wake of assassination attempts; "I think we'll probably pass," he said. That mail-bomb spree was a shame, he argued, because it slowed Republicans' midterm momentum. His tweets of sympathy for the victims of the synagogue shooting were followed by color commentary on the World Series. The solution to such shootings, he suggested, was to bring back the death penalty: How better to fight violence than with more violence? And if there is a rising of dark and dangerous forces in the land, he believes, it means that "the Fake News Media, the true Enemy of the People, must stop the open & obvious hostility & report the news accurately & fairly."

Likewise, the evidence of his utter lack of empathy belies his great gift and political advantage—this ability he has to sense our darkest instincts and call to them, coax them out of hiding, when we'd much prefer not to see them at all. Of all the norms he violates, this is among the most disturbing: that Americans always sought leaders who lift us up and bring us together rather than drag us down and tear us apart. MAKE AMERICA GREAT AGAIN has been a brilliant, aspirational slogan for the resentful and aggrieved; but that road to greatness turns out to run through the smoking wreckage of institutions, values and national honor. Gone is the joy that comes from political battle that is not a fight to the death. When politics becomes blood sport, people actually die.

Here then is the challenge: our normal responses aren't working. The spread of conspiracy theories as the "real truth" at least presumes that truth matters, even as the theories undermine it. Social networks designed to connect friends turn out to be expertly designed to create enemies. Fact-checking makes no difference; tribes trump truth. When reporters try to hold the president accountable for inflaming the hatred, he attacks them for bias, for fueling division. When partisans on the left call for fighting fire with fire, they validate the tactics that debase our discourse.

Caught in the middle is a public not so much enraged as exhausted, at a loss to explain or escape the ugly, intellectually barren fever swamps that now pass for our public square. Conspiracy theories flourish as a substitute for the hard work of actual knowledge. They grant those who embrace them a shortcut to superiority: average people believe what they hear on the evening news or read in the papers, but you are smarter, you know better, you

Impromptu monuments for the people slain by an anti-Semitic gunman at the Tree of Life Synagogue

see the patterns and plots behind these events, the "globalists" pulling the strings, the "deep state" undermining your mission. You can't be fooled, you won't be puppets, you know the truth.

So what to do? The most eloquent politicians who warn of the toll this is taking have been mainly the ones departing the scene. Where will we find moral leaders in an age of abdication, when "elites" of all kinds are suspect?

If our past is a guide and comfort, it comes from where it always comes from. Look left, look right, not up or down. Leadership lies with the spirit of the Tree of Life synagogue, where victims included the dentist who offered his services at the free clinic, the brothers who had "not an ounce of hate in them," as their rabbi said at their funeral, the couple married there more than 60 years ago, all mourned by thousands who came out to stand vigil in silent solidarity. It lies with the postal workers going about their work even as more mail bombs turned up.

If the opposite of love isn't hate but indifference, then the antidote to hate is engagement. It comes from the people who spend weekends knocking on doors and staffing phone banks to get out the vote. From technologists looking for ways to drain some of the toxins from our information streams. From employees who are letting their bosses know what kind of humane, sustainable culture they expect in one of the richest countries on earth. From church groups and civic clubs and marchers raising money for clothing drives or breast-cancer research. From teachers staying after school to tutor and coaches teaching their players about the difference between an opponent and an enemy, so they can take that wisdom with them into the public space. Leadership will come from uncountable individual decisions to model kindness, fight alienation, get offline and into the streets or the classroom or the sanctuary and help someone in need.

This much is clear: no one is coming to save us. We'll have to do this ourselves. □

Nancy Gibbs, a former editor in chief of TIME*, is the Edward R. Murrow visiting professor at Harvard Kennedy School of Government.*

MAY THEIR MEMORY BE A LESSON

Nothing can bring back the people taken by hate, but a sorrowful kind of good can come from the loss. It's up to survivors to call out intolerance in our midst and to remember that we could all be the victims next time

BY DEBORAH E. LIPSTADT

The mass shooting at Pittsburgh's Tree of Life synagogue that claimed 11 lives in October 2018 left Americans once again confronting the face of hate. Even after so many such shootings, so many such deaths, we find ourselves grasping for how to process the loss. In that week's issue of TIME*, a professor of Holocaust studies offered one way.*

I WAS AT A RESORT OUTSIDE PHOENIX PREPARING for an uncharacteristically—for me, that is—relaxing day. Armed with a stack of books (admittedly, most of them dealt with the Holocaust), I had planned on nothing more than sitting by a pool and reading.

As I crossed the grounds, a woman who had heard me speak the previous night about contemporary anti-Semitism, approached: "Your words were prescient." Sensing my confusion, she added, "The shooting. Pittsburgh. The synagogue." I immediately turned to CNN and learned of the unfolding tragedy.

As we now know, 11 Jews at Tree of Life synagogue were gunned down. Some were probably there for spiritual reasons: to worship God, hear words of Torah and pray for the sick. Others were there for fellowship: to see fellow Jews and catch up on the week's events. (A Jewish pundit once said, "My neighbor Jacob goes to synagogue to talk to God. I, a nonbeliever, go to talk to Jacob.")

Those Jews, the "regulars," as they are called in synagogue parlance, were the victims. Some were gunned down at the entrance as they donned their prayer shawls and prepared to enter the sanctuary. Others were killed inside what that morning would be anything but a sanctuary.

Among the victims were many elderly. For who

gets to synagogue on time? Those without kids to dress and meal tables to set. Those who, living alone, consider the synagogue their "club." They also know that a minyan, or prayer quorum—which in this Conservative synagogue is 10 adult Jews—is necessary to say the Kaddish, the traditional prayer said by mourners. Having reached their eighth or ninth decade, they have needed that quorum in the past—for parents, siblings and even children. They come early to enable other Jews to mourn their losses.

Today they are the ones we mourn.

THERE IS AN irony about this tragedy. Now is, arguably, a golden age for American Jews. Universities that once enforced quotas limiting enrollment of Jewish students have presidents who are Jews. Resorts that once forbade Jews host Passover retreats. Law firms that once rejected Jewish applicants now ensure that kosher food is available at partners' meetings. Structural anti-Semitism, the kind of anti-Semitism practiced by governments and institutions, is at an unprecedented low.

But that is only half the story. Acts of anti-Semitism have increased exponentially in recent years. American Jews have expressed heightened concerns about this. Yet they may have a myopic view of the problem. Many American Jews worry about anti-Semitism that comes from the political left. They see those on the left vilifying Israel in a fashion that is applied to no other country. Sometimes they see Jews denied something denied to no other people: a national identity.

But the organized community has not shown the same concerns about anti-Semitism on the right. In recent decades there has been a rise in hate groups. We witnessed an uptick during the Obama administration, possibly as a right-wing response to having an African American as President. These groups emerged with newfound strength during the 2016 presidential campaign. They now feel they have gained a certain legitimacy in the eyes of the government. I do not mean to suggest that the administration is explicitly saying their nationalism and white supremacy are acceptable. The suggestions are far from explicit—e.g., there were "very fine people on both sides" in Charlottesville [where white supremacists marched and a woman protesting their message was killed]. Their vision of America is one that is white and Christian. And Jews should not deceive themselves for a moment. In these folks' eyes Jews are neither.

The vast majority of these anti-Semites, however vile their ideas, would never commit violence. However, there are the extremists. For these deranged, hate-laden folks, their leaders' divisive rhetoric becomes verbal ammunition that inspires them to build pipe bombs or take AR-15s into a synagogue.

If the murder of 11 innocent people can teach us anything, what lessons might we learn?

Do not look for haters only on the other side of the political transom. Those on the political left who see anti-Semitism only on the political right have blinded themselves to what may well be happening in their own midst. Those on the right who are concerned only about the ostensible "lefties" on campus and beyond are blind to what is happening next to them.

We may never change the minds of people who send pipe bombs, but we can stop their kind of thinking from continuing to influence others. Next fall, at Thanksgiving dinner, when your curmudgeon uncle or successful cousin (not all haters are old and ornery) begins to rant about Jews, blacks, Muslims and LGBTQs who are ruining this country, do not sit idly by. Challenge what they're saying. Do so not to change their minds but to reach others who may be listening and learning. Silence is an imprimatur for hate and prejudice.

Do not think this attack is only about Jews. It may start with the Jews, but it never ends there. And conversely, it may start with others—Muslims, African Americans, LGBTQ-identifying folks—but it will ultimately reach Jews. Lost in the legitimate media attention paid to the Pittsburgh attack was the murder a few days earlier of two African Americans by a white man. He had tried to gain access to a predominantly African-American church but found the doors locked. Instead he went to a nearby supermarket and killed two black senior citizens.

In Jewish tradition, upon mourning the dead, we say: May their memory be for a blessing. Today we should say, May the memory of all those killed and the suffering of those who have been wounded be for a blessing and for a lesson, a lesson we ignore at our personal, national and moral risk. □

Deborah E. Lipstadt is Dorot Professor of Holocaust Studies at Emory University and the author of Antisemitism: Here and Now.

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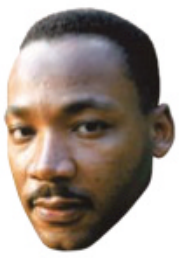
WISE WORDS

"People aren't evil, and people aren't good. They live how they can one day at a time. They come out of dust; they go back to dust, dusty feet, no wings, and whose fault is that?"

CARYL CHURCHILL

"The web of our life is of mingled yarn, good and ill together."

WILLIAM SHAKESPEARE



"I believe that unarmed truth and unconditional love will have the final word in reality. This is why right, temporarily defeated, is stronger than evil triumphant."

MARTIN LUTHER KING JR.

"Goodness is the only investment which never fails."

HENRY DAVID THOREAU

"Goodness is something chosen. When a man cannot choose, he ceases to be a man."

ANTHONY BURGESS, *A CLOCKWORK ORANGE*

"I HOPE THAT REAL LOVE AND TRUTH ARE STRONGER IN THE END THAN ANY EVIL OR MISFORTUNE IN THE WORLD."

CHARLES DICKENS

"What *Twilight Zone* did was show we all have a great capacity for good and evil."

LIN-MANUEL MIRANDA

WHAT DEFINES US AS GOOD OR EVIL IS A QUESTION OF OUR VERY NATURE.
IT LIES WITHIN OUR DEEDS, OUR MORALITY AND OUR DEMONS.